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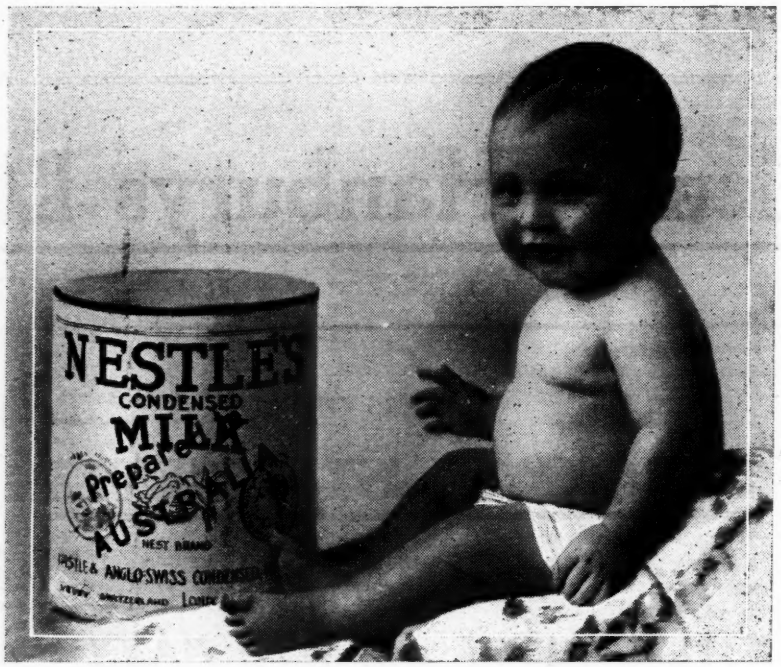

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AN EPIDEMIC OF INFLUENZA IN THE DAYS OF THOMAS SYDENHAM.[1]

By **Jos. C. Verco, Kt., M.D. (Lond.),**

President of the South Australian Branch of the British Medical Association.

In looking through Sydenham's works, when laid by a few weeks ago, feeling sure he must have had experience of some influenza epidemic, I came across his Chapter V. containing an account "Of the Epidemic Cough of the year 1675, and the Pleurisy and Peripneumony which followed upon it."

> In 1675 the seasons having continued unusually warm like summer, till towards the end of October, and being suddenly succeeded by cold and moist weather, a cough became more frequent than I remember to have known it at any other time; for it scarce suffered anyone to escape, of whatever age or constitution he were, and seized whole families at once. Nor was it remarkable only for the numbers it attacked (for every winter abundance of persons are afflicted with a cough), but also on account of the danger that attended it. For as the constitution (by which he means the atmospheric constitution of the year) both now and during the preceding autumn eminently tended to produce the epidemic fever above described (by which he means the anomalous smallpox of 1674) and as there was now no other epidemic existing, which by its opposition, might in some measure lessen its violence, the cough made way for, and readily changed into the fever. In the meanwhile, as the cough assisted the constitution (*i.e.*, the constitution of the atmosphere) in producing the fever, so the fever on this account attacked lungs and *pleura*, just as it had affected the head even the week preceding the cough; which sudden alteration of the symptoms occasioned some, for want of sufficient attention to esteem this fever an *essential pleurisy* or *peripneumony*, though it remained the same as it had been during this constitution.
>
> For it began now, as it always did, with a pain in the head, back, and some of the limbs; which were the symptoms of every fever of this constitution, except only that the febrile matter, when it was copiously deposited in the lungs and pleura, through the violence of the cough, occasioned such symptoms as belong to those parts. But nevertheless, as far as I could observe, the fever was the very same with that which prevailed to the day when this cough first appeared; and this likewise the remedies to which it readily yielded plainly showed. And though the pungent pain of the side, the difficulty of breathing, the colour of the blood that was taken away, and the rest of the symptoms that are usual in a pleurisy, seemed to intimate that it was an *essential pleurisy;* yet this disease required no other method of cure than that which agreed with the fever of this constitution, and did no ways admit of that which was proper to the *true pleurisy*, as will hereafter appear. Add to this that when a pleurisy is the original disease it usually arises betwixt spring and summer; whereas the distemper we now treat of, begun at a very different time, and is only to be reckoned a symptom of the fever which was peculiar to the current year, and the effect of the accidental cough.

Sydenham recognized what he calls an "epidemic cough," which was peculiar to the year 1675, which was characterized by its prevalence, greater than he had ever known, by its indiscriminate attack on any age or constitution, by its suddenness, striking down whole families at once; by its commencement as a fever causing pains in back and limbs, by the occurrence of cough, which he speaks of as accidental and during the continuance of the fever by the onset frequently of a complicating pleurisy and pneumonia; hence also by its unusual danger. The pleurisy and pneumonia (or peripneumony as he calls it) he regarded as part of the disease and as distinct from what he calls true pleurisy or essential pleurisy and pneumonia, (*a*) because the fever continued the same with the pleurisy as without it; (*b*) because it did not admit of the same method of treatment as a true pleurisy and (*c*) because it did not come at the same season of the year.

He recognized that the cough was not an ordinary cough, but was a symptom of the epidemic fever and advised abstinence from "flesh-meats, and all kinds of spirituous liquors, moderate exercise, going into the air, and a draught of cooling pectoral ptisan to be taken between whiles." To quiet the cough "opiates, spirituous liquors, and heating medicines used for this purpose are equally unsafe." He says these tend to

> "raise a fever. And this frequently proves very fatal to abundance of the common people, who whilst they unadvisedly endeavour to check the cough, by taking burnt brandy and other hot liquors, occasion pleuritic or peripneumonic disorders; and by this irrational procedure, render this disease dangerous and often mortal, which of its own nature is slight and easily curable. Neither do they err less, though they seem to act more reasonably, who endeavour to remove the cause of the disease by raising sweats; for though we do not deny that spontaneous sweats frequently prove more effective than all other helps in expelling the morbific cause, yet it is apparent that while we attempt to force sweat, we inflame the blood and may possibly destroy the patient whom we desire to cure."

The special diaphoretics he is here objecting to are volatile salt of hartshorn (ammonic carbonate), volatile aromatic spirit (*spir. ammon. aromat.*), etc.

He also regarded the pleurisy and peripneumony as symptomatic and not essential or true, and when it arose, he bled from the arm and put a blister on the neck and gave a glyster daily, and advised the patient to sit up some hours every day and take a little small beer or milk and water. If the pleuritic pain continued violent, in two or three days he bled again. But he did not bleed more than once usually or twice occasionally, unless the pleuritic trouble increased, and then he did it with the knowledge that it was not devoid of danger. Whereas essential pleurisy, *i.e.*, when not due to an epidemic fever, indicated repeated bleedings, which could be performed until the disease was cured.

I think there can be no doubt the "Father of English medicine" is describing an epidemic of influenza and recognized it as something different from the ordinary winter cold and cough, and its complicating peripneumony as part of the disease and not an idiopathic pneumonia.

Of course with his ancient ideas of humours and effluvia, to be digested and concocted and expelled, in

[1] Read at a Meeting of the South Australian Branch of the British Medical Association on May 29, 1919.

accordance with the old humoral pathology, his explanations are very involved and quaint, and his treatment, by bleeding, blistering and purging antiquated, yet there is evidence of an acute insight into the epidemic nature of the disease and a commonsense treatment of it accordingly.

He recognized, too, that one person "infects another by an emission of spirits, which soon assimilates the juices to themselves and change them into their own nature."

Also that in a very malignant affection there may be no elevation of temperature at all, and the patient may die; while in a less malignant case there may be but very slight febrile movement, and the usual symptoms be very irregular, or incomplete in their manifestations and yet the patient be dangerously ill, and these variations are to be regarded as evidences of differing degrees of the same morbific influence.

All of which coincide with what we know of the natural history of our present epidemic of influenza.

CONTRACTED PELVIS IN OBSTETRIC PRACTICE.

By **William T. Chenhall, M.D., F.R.C.S.,**
Honorary Surgeon, Royal Hospital for Women.

Success in general practice bears direct ratio to success in obstetrics. Further, success in obstetrics bears direct ratio to accuracy of knowledge concerning maternal and fœtal size and form, maternal power and the applied principles of aseptic surgery.

To these must be added the great gifts of patience and sound judgement. Experience will amply verify that mere text-book lore is insufficient. Nature will not be trammelled by hard and fast rules, yet she is ever one's best friend in a difficult case. Sound judgement and experience can alone guide one in the application of one's knowledge to the individual case. In practice one should guard against being trammelled by hard and fast rules. Guided by principles based upon accurate knowledge, the young doctor will, at least, guard himself against the prevailing error of "meddlesome midwifery." Details may be forgotten in the years of military service and may demand complete resurrection. If so, study them in your text-books, since the principles of practice are based upon accurate knowledge of details. "Facts are stubborn things" and so are many of the problems of obstetrics. Each case will surely possess some individuality; each will demand separate study. Study each case, even the simplest, most straight-forward; it will reward you. Presume that every parturition may be abnormal. Prove to yourself that it is not. Study the woman herself in type, build, form and health; study the passages; study the child.

Thus will you vitalize your difficult, anxious work and render it easier, deepen its interest and achieve success.

Above all else in obstetric practice cultivate patience, the twin sister of nature, and apply it with confidence. Stand firm in your convictions against the importunities of the patient, her relatives or the nurse.

Regrets are often born in weakness. Strangle them in their birth. Exercise self-reliance and courage in doing what honour and duty direct to be right. Then, having done your best, bow with humility to inevitable circumstance, whatever the issue, go home, take a good meal and sleep. A man who does not know his subject should not embark on the difficult problems of obstetrics, but should early seek aid. From every case he will learn something and will gain experience. With increased knowledge, confidence will be gained.

Remember that many obstetric disasters may be anticipated and prevented by ante-natal measurement of the pelvis and recognition of its contraction.

Timely observation will lessen error and hence enhance success.

Possess and use a pelvimeter.

Pelvimetry is, in obstetric practice, the analogue of percussion and auscultation in clinical medicine. Accuracy in both depends upon the skill of the operator in interpreting the phenomena.

The importance of this subject of pelvic contraction is self-evident. The pernicious influence of overcrowding in our cities and country towns is painfully important. "Flat pelvis" as a sequence of "flat life" is more than a play on words. Surf-bathing and our outdoor sports may check, but will not stop its invasion. All the world knows that; yet authorities do not attempt to check it. Contracted pelvis occurs in 8% of the white women in America. Its existence cannot be ignored in practice. Hence the importance of early, accurate diagnosis and the application of carefully studied treatment.

The path is honest duty, the certainty reward.

Diagnosis.

Obtain early all possible data. In a primigravida note the general build, study the family type. Never be guided by suspicion, it is as dangerous in obstetric practice as in civil life. Verify your suspicion, or dispel it by mensuration, absolute and relative. Study the type, and especially the size and shape of the male parent. Pelvimetry, though valuable, cannot, even in the most experienced hands, be made infallible. Therefore, invoke every other aid at your command.

Rickety pelvis may be suspected on a history of recurring bronchitis or delayed walking in childhood. Lordosis or kyphosis are definitely suggestive, but even a limp, slight curvature, rachitic head or rosary should arouse suspicion.

A pendulous abdomen in a primigravida should always suggest, at least, some marked disproportion between the fœtal head and the maternal pelvis.

The record of previous labours may prove unreliable, since in moderate degrees of contraction—and these constitute our most perplexing problems—the incidence of other factors may progressively render successive labours more difficult.

Fictitious hope may prove more dangerous than unwarranted suspicion. These cases of moderate contraction are the most frequent and most important of all. Too much importance must not be attached to the presence or absence of marked deformity. Distinct peculiarity does not necessarily imply diminished capacity, nor does the absence of external deformity prove that pelvic malformation may not exist.

Pelvimetry.

(*a*) *External measurements; approximate estimate of the formation of the true pelvis.*

Method.—Lay the patient, covered with a thin chemise, on a firm table. Grasp each tip of the pelvimeter between the thumb and second finger. Locate each point with the index finger. Apply the tips firmly against these points and read off the scale. It it "simplicity personified," and will not occupy five minutes.

Diameters. (1) Inter-Spinous (normal, 25 cm.).—Define the exact terminal points of the anterior superior spinous processes. Read and record the scale.

(2) Inter-Cristal (normal 26.8 cm.).—Define the terminal points. They are the widest points of the crests. Define with each thumb and middle finger the inner and outer borders, and with the index finger find the centre of each crest, and there apply the tips of the pelvimeter. Read and record the scale.

(3) External Conjugate (normal, 18.7 cm.).—Turn the patient on her left side. Stand behind her. Palpate and inspect the lumbar spinous processes from above downwards. The last and most prominent is usually the point required. Find a small depression immediately below this point. If any difficulty presents, take the superior angle of a small rhomboid found often at the lower part of the vertebral column (Michael's rhomboid). The point corresponds very closely with the one required.

Place one tip firmly in this pit and the other on the upper margin of the symphysis pubis.

Deduct 8.7 cm.. The result will, with fair accuracy, give the internal or true conjugate of the brim.

Suspect pelvic deformity if the external conjugate measure 17.5 cm. or less.

Read and record the scale.

(4) Transverse Diameter of the Outlet (normal, 11 cm.).—Define each ischial tuberosity at the most widely separated points. Apply the tips to the prominent lips, and read and record the scale.

This measurement is valuable in a kyphotic or in a funnel-shaped pelvis.

Value of External Pelvimetry.—One may draw certain important conclusions. You may surmize the existence of a generally contracted pelvis if all diameters are equally diminished below the normal. You may surmize with equal confidence, if the external conjugate alone be below normal, the existence of a flat pelvis.

Measure, if possible, before the seventh month of pregnancy.

If in a primigravida your measurements prove normal and, by papation, you find the fœtal vertex fixed in the pelvic cavity, little cause for anxiety presents and internal pelvimetry is unnecessary.

If, on the other hand, one finds the external conjugata much less than normal (normal, 18.7 cm.) internal pelvimetry should be applied. It may spare you great anxiety.

(*b*) *Internal Measurements.*

Manual Estimate.—No satisfactory pelvimeter is available. This is the ultimate opinion of experts. In practice one takes most satisfactory measurements with the fingers.

Great care is necessary as a guard against error.

(1) Conjugata Vera. (normal, 11 cm.).—This measurement is most important, since in the majority of abnormal pelves the most marked deformity affects the superior strait in its antero-posterior diameter. One cannot, in a living woman, measure directly the antero-posterior diameter of the superior strait.

This, though, may be estimated by measuring the diagonal conjugate and making a certain deduction from it. This diagonal is the distance from the promontory of the sacrum to the lower margin of the *symphysis pubis*.

First Method.—Place the patient on her back on a table. Elevate the knees over its end. Cleanse the external genitals. Sterilize the examining hand or, better still, glove it. Insert two fingers within the vagina. Palpate the anterior surface of the sacrum from below upwards. Note the vertical and the lateral curvatures. Test the motility of the coccyx aided by the thumb externally placed. In a normal pelvis only the last three sacral vertebrae can be felt without pushing up the perineum. If the entire surface of the sacrum be readily accessible the pelvis is markedly contracted.

Depress you elbow if the above condition is not found. Keep your fingers firmly together. Push the perineum forcibly upwards. Direct your fingers towards the umbilicus. Your second finger will impinge against the projecting bony margin at the base of the sacrum. Press your finger firmly against this point. Elevate your hand until the radial border of your index finger impinges against the pubic arch.

Mark this point accurately with the index finger of the other hand. Withdraw the fingers thus held. Measure with the pelvimeter the distance between the marked point and the tip of the second finger. This will represent the diagonal conjugate. Be sure that your fingers pressed on the correct points, and especially guard against the error of a false promontory.

Now, before estimating the true conjugate from the diagonal or oblique, some very important practical points must be further considered.

Estimate the height of the pubic symphysis. Estimate the height of the promontory. The higher each is above normal, the more you must allow. Again, define the angle of the symphysis to the horizon with patient erect. The more obtuse its angle the more you must allow.

Deduct 1.2 c.m. to 1.9 c.m. from the oblique conjugate. The result, under above corrections, will give you the true conjugate.

Second Method.—Place the patient in the same position as before and make similar preparation.

During labour either a primipara or a multipara may be examined without anæsthesia. Usually, apart from labour, it is difficult, if not impossible, in a primigravida.

Pass the whole hand gently into the vagina and thus estimate the general formation of the true pelvis. The method cannot claim absolute accuracy, but forms a useful general survey.

Grades of Deformity.

The most practical plan is: take as your basis for guidance the conjugate diameter of the brim of the pelvis. Consider the case a major deformity if this be less than 7.5 cm.

Consider it a minor deformity if this be 2 cm. greater, that is, 9.5 cm.

It is easy to remember 7.5 cm. as the maximum deformity, 9.5 cm. as the minimum, and that the difference between these represent all cases that may be classed as medium or moderate deformity.

Major deformity *Conjugata vera* = 7.5 cm. or less.

Minor deformity *Conjugata vera* = 9.5 cm. or more.

Intermediate deformity *Conjugata vera* = 9.5 cm. — 7.5 cm.

These measurements are sufficiently accurate to afford safe guidance, but in contracted pelvis another important factor will influence the parturition.

Estimation of the Size of the Fœtal Head.

The fœtal head varies much in size, and what is perhaps more important, varies in consistency. "The fœtal head is the best pelvimeter."

Method.—Prepare the patient in the dorsal position as before stated. Administer anæsthesia. Observe every detail of asepsis.

Stand at the patient's side, facing her.

Pass two or more fingers into the vagina and estimate the relative size of the pelvis and head. Place your other hand firmly over the abdomen above the pubes. Push the fœtal head firmly, yet gently, into the pelvis. Now, with the thumb of the hand which you inserted into the vagina, press upon the brim of the pelvis and estimate the degree of overlapping. As Munro Kerr has rightly claimed, you can estimate very exactly the relative size of the fœtal head and the maternal pelvis. The variety of parietal obliquity or asynchitism, which exists or is produced by the external hand, must be observed.

Some important practical points should be remembered. Absence of normal descent does not create an abnormally large child.

Heredity naturally suggests that the progeny of an undersized woman with contracted pelvis, will itself be unduly small.

The father's influence must, however, be duly weighed. I have recently had marked evidence of this fact.

Effects of Contracted Pelvis upon the Course of Pregnancy and upon the Mechanism of Labour.

(*a*) Retroversion and, later on, incarceration may occur from the fundus of the rising uterus impinging against a prominent sacrum.

(*b*) Conversely during late pregnancy, especially in a primigravida, normal descent may be deterred. The abnormally high fundus usually causes marked respiratory and circulatory distress. This condition is frequently ascribed by the inexperienced to excessive amniotic fluid. Satisfy yourself early on this important practical point. The uterus will be found abnormally movable owing to non-engagement of the fœtal head in the pelvis.

(*c*) Pendulosity of the abdomen and acute anteflexion may arise.

If you find in a primigravida marked pendulosity, and especially if the condition be associated with lumbar lordosis, suspect the existence of marked pelvic deformity.

Acute anteflexion of the uterus may be superadded.

In such a case frequency of urination will certainly co-exist and should guide you.

A pendulous abdomen in a multipara signifies little more than the existence of lax abdominal walls. The patient should wear an abdominal support during late pregnancy, and during delivery and in labour should lie as much as possible on her back. These are valuable practical aids, which are unfortunately frequently forgotten.

Position and Presentation of Fœtus.

Detention or prevention of normal descent will decrease the number of vertex presentations, whilst the ratio of face, breech and transverse presentations will surely be increased.

It is a sound practical point to remember that a face or a transverse presentation in a primigravida, and especially if the abdomen be unduly prominent, indicates an abnormally small maternal pelvis or an abnormally large fœtal head.

Course of Labour.

If during the last weeks of pregnancy or at the onset, one finds that the fœtal head has not entered the superior strait, labour will surely be unduly prolonged from imperfect dilatation of the cervix and delayed moulding of the fœtal head. The diagnostic and prognostic problems are very exacting and will tax to the last degree your knowledge, judgement, skill and patience.

(*a*) *Dilatation of the Cervix.*—Normal hydrostatic dilatation is prevented. Premature rupture of the membranes will surely occur, owing to the entire uterine force being exercised upon the membranes, in at least one-fourth of your cases. Even then the presenting part may not engage. Further dilatation cannot proceed and a tough problem presents. Consider well such a proposition.

Patience will no longer avail.

If the gods are propitious aid to dilatation may be granted by the formation of a *caput succedaniun* at the most dependent part. Patience may now avail. Moulding of the fœtal head may occupy many hours.

Remember that in a generally contracted pelvis this hindrance will surely persist throughout the entire pelvic canal. Therefore, be patient and watchful. If the pelvis be simply flat, labour may promptly terminate after the superior strait is passed.

(*b*) *Abnormal Uterine Contractions.*—Weakened musculature in a previously sorely-tried multipara may cause these.

Pituitrin is dangerous unless you are certain that dystocia is overcome. Sedatives are useless.

Tetanic contractions, though rare, are very serious. They may cause uterine rupture.

In such emergency be alert and, as rapidly as safety will permit, terminate labour.

(*c*) *Uterine Rupture.*—Imminent danger exists in a prolonged second stage if the head remains at the superior strait whilst contractions cause severe stretching of the lower uterine segment.

I should, in such emergency, guarding carefully against traumatic rupture, promptly deliver the child.

(*d*) *Production of Fistulæ.*—Real danger will arise from fixation of the fœtus in the superior strait, delayed advance and undue, prolonged pressure on some part of the generative tract. These fistulæ occur much more frequently than they should and inflict a severe rebuke on the accoucheur when necrosis is complete three or four days after delivery.

They cause intense distress to your patients. Patience, up to a certain point in an accoucheur, is a virtue; thereafter, an affliction. Cultivate and practice, don't abuse it.

The principles which should guard you against fistulæ are self evident. Reason them out.

(*e*) *Intra-Partum Infection.*—Constant danger arises from frequent examinations. I do not agree with the "all-external" method.

Since the superstructure of your practice can alone be built on the foundations of ideal sepsis, the indications are self-evident.

Effect on the Child.

(*a*) *Asphyxiation.*—Rupture of the membranes followed by frequent, prolonged uterine contractions will, as sure as night follows day, exert a deleterious influence, will interfere with the placental circulation, will sooner or later—and it may be very soon—cause asphyxiation.

Watch this carefully, ever remembering the principles which should guide you. Exercise your judgement in view of all the indications. Do your best with alert confidence. Bow to inevitable circumstance, should disaster overtake you. The most experienced accoucheur may not have done more.

(*b*) *Prolapse of the Cord.*—This, undoubtedly, is one of the most frequent causes of fœtal death during spontaneous labour in a contracted pelvis.

Grave danger arises not from the prolapse, but from compression of the cord between the presenting part and the pelvic wall. Here I join issue with the "all-external" accoucheur and ask him how he will detect the emergency.

Examine under the strictest asepsis. Consider the condition of the membranes, the state of the child, the extent of parturient dilatation. Remember that the life of the mother remains paramount unless religious or other influences weigh. Observe the condition of the fœtal heart. Test the pulsations of the cord during the pains and in the intervals. Intermittent, irregular, slow pulsations, with diminishing volume and tone in the cord, render the chances for the child so small that your chief interest must centre on the mother. In treatment, hard and fast rules will not guide you. Experience and careful consideration of all the circumstances will be your best guide.

(*c*) *Compression of the Skull and Scalp.*—The extraordinary moulding and the weird effects produced rarely need cause you anxiety. They are the result of nature's supreme efforts. Nature will cure them if the child live.

Prognosis for the Mother and Child.

The following facts, briefly stated, will command your attention in a difficult case.

(*a*) *Spontaneous Delivery.*—This will not occur if the child be fully developed and the *conjugata vera* (C.V.) measure 7 cm. or less.

It is less likely to occur in a generally contracted pelvis than in a flat one.

Delay will bear no special danger whilst the membranes remain intact. Rupture will rapidly increase the danger for both the mother and child.

Remember always that, should spontaneous delivery not occur and you do not act with decision and promptitude, she will surely die from uterine rupture, shock and exhaustion, hæmorrhage or infection. You must not allow her to do so. Decide and act.

In both spontaneous and artificial delivery, unless other factors supervene, the danger to the child will rise in direct ratio to the amount of pelvic contraction.

In spontaneous delivery maternal danger will depend upon the course of labour and your standard of asepsis. It must never be less than ideal, difficult as such attainment may be. The life of the woman will chiefly depend upon it.

(*b*) *Artificial Delivery.*—In artificial delivery the asepsis, balanced judgement and skill of the accoucheur will prevail. Cultivate each and all. Your success will surely depend upon these—your choice of procedure, the standard of your technique and the environment of the patient. Constructive genius will quickly dispel discouraging prospects. In emergency wondrous work may be done in creating a clean operative field if a few sterile sheets, a line and pegs or pins are available.

Treatment.

In cases of contracted pelvis—that is, in 5% of all cases, at least—perplexing problems meet one at every glance.

Each individual case will compel individual judgement.

Experience and skill, however great, will not exonerate you from the immediate demand since no hard and fast rule will serve. In obstetric practice it has ever been so and never will be different.

Yet the problems may with thought and care be simplified.

Divide each case after all data are collected into one of three groups.

Group I.—Maximum deformity (C.V. = 7.5 cm. or less).

Consider this the minimum through which a normally developed, full term fœtus may be spontaneously born, and that with every decimal of greater contraction which exists, the prospects of spontaneous delivery vanish.

Remember, further, that the prospects of delivery of a living child *per vias naturales* equally rapidly vanish.

Practically only one of two alternatives present: Cæsarian section if the child be living, craniotomy if the child be dead.

Group II.—Minimum deformity (C.V., 9.5 cm. or more). (9.3 cm. is set down in text-books, but 9.5 cm. is very near the mark and simplifies the memory of figures, since all intermediate cases are grouped between 7.5 cm. as major and 9.5 cm. as minor deformity, that is, the difference is 2 cm.).

In all this group of cases spontaneous delivery or, at most, the application of forceps will always result in a satisfactory termination.

Patience here is a virtue, "meddlesome midwifery" a vice.

Group III.—Intermediate deformity (C.V. less than 9.5 cm., but more than 7.5 cm.)

Perplexing Problems.—At least six of these will present themselves to the man who knows his subject and is prepared to solve the problem guided by a high sense of duty. One must decide to let nature do her best, or must decide at once upon the induction of premature labour, with all its inherent disadvantages themselves much greater than the doctor engaged only in hospital will admit, since he does not witness, as does the family attendant, the great battle for life and the high mortality of such infants during their first year of life. Not improbably the battle clings throughout life.

If labour be advanced you may require to decide upon version, forceps or the added aid of symphysiotomy. Finally, you must decide, at the earliest possible date or hour, the wisdom of Cæsarian section.

In any case your skill and judgement will surely be taxed to their utmost. Endeavour to decide whether the pelvis is only flat or generally contracted. If flat only, the child unless unduly large may squeeze through a *conjugata vera* of 7 cm.

Consider all measurements, and especially the relative sizes of the passage and the passenger. Weigh every other factor with patience, care and judgement. Never forget that nature is your best friend, that spontaneous delivery, even slow, is natural, ideal, and eliminates dangers which must arise in artificial delivery, that its prospects increase with each decimal of enlargement, that they decrease with every decimal of contraction.

Exercise deliberate action. Examine once and for all, the pelvic deformity. Anæsthetize the patient, if necessary. Estimate the fœtal head in ratio to the maternal pelvis. Observe the abdominal contour of the mother, test her muscular power. If in labour, estimate the character and value of the labour pains. Define the potentiality for moulding of the fœtal head. Having thus examined or checked previous observations, decide and act according to your judgement.

The following may aid your judgement.

(*a*) *Spontaneous Delivery.*—Naturally, up to a certain point, this will give the best results for mother and child. Take 7.5 cm. as a diameter through which little hope exists. Nor is there much hope in a pelvis 1 cm. larger. Therefore, in these intermediate cases, take 8.5 as your guide. Remember that a true conjugate above this enhances the prospect of spontaneous delivery, that every decimal below it increases the probability of your help being required. Every man of experience will tell you that the possibility of spontaneous delivery through a narrow brim is greater than beginners believe. Moreover, he will tell you that he has felt anxious, almost impatient, about the woman's suffering, that he has felt tempted to interfere until the high fœtal mortality and high maternal morbidity in previous cases illuminated his mind, that thereafter he decided to watch the mother and the child and allow nature free play for a few hours.

Leave the suitable cases to nature and you will be amazed at your low fœtal mortality and maternal morbidity. Instead of a fœtal mortality of one out of every two cases, it will be less than 5%; instead of stretching and permanent damage to the pelvic floor and vaginal outlet, a few sutures, at most, will be required for complete restoration and repair.

Bear this in mind and if still in doubt, check recent reports from hospitals in London, Glasgow and Dublin or, nearer home, the results at the Royal Hospital for Women.

One naturally asks what factors stand against this ideal result. Clearly, the deformity, the fœtal head and the expulsive forces.

(*b*) *Version.*—The following views may be accepted, since they correct three foundamental errors. The wedge shaped head will not pass through more easily base first. Neither will the parietal bones more fully overlap.

Further, as Milne Murray proved, compression of the head with forceps, whilst increasing the longitudinal diameter does not produce a compensatory increase in the bi-parietal diameter.

As a general principle for guidance version is not better than forceps, unless some complication as *placenta prævia* co-exist. Or, suppose one found in a scolio-rachitis pelvis the occiput directed towards the narrow side; in such a case unless ratios were good I should prefer Cæsarian section in the interests of the mother and child.

(*c*) *Forceps.*—Remember that fœtal mortality is still very high, and maternal morbidity, if one include minor injury, colossal. The greatest danger arises from impatience, which denies the head ample time for moulding.

If in intermediate cases you find the true conjugate 8.5 cm. or less, depend upon it that the chances of asphyxiating the child, or of indenting the skull or severely bruising the scalp or face are so great as to be almost unavoidable. Hence, when you meet such a condition allow ample time for the head to mould, apply the forceps with great care, guard against brute force, and apply traction with well-governed moderation.

Remember that if the child must be lost, the mother must not be frightfully torn or otherwise unduly injured.

Clearly, if during bimanual examination and palpation of the fœtal head followed by its depression, you found overlapping at the brim, the use of forceps is practically inadmissible.

When you find the true conjugate above 8.5 cm. the prospects for the child are much better.

A good axis-traction forceps should form part of every accoucheur's equipment. Having justifiably exhausted your patience, always remembering that it should be more enduring in a primipara than in a multipara, apply your forceps. *In extremis* the Walcher position may help.

If you cannot deliver, if labour has been prolonged and the grave danger of infection has occurred, you must complete your delivery *per vias naturales* by some means or other. Unless experienced in surgery and the technique of symphysiotomy or pubiotomy I doubt the wisdom of attempts at thus obtaining more room.

Craniotomy may be your only alternative. It is

incumbent upon you to cause a minimum of maternal morbidity since such injuries demand repair and greatly add to a mother's suffering, often for the remainder of life.

Reports of Cases.

THREE SURGICAL CASES.

By **John B. Nash, M.L.C., M.D. Edin.,**
Sydney.

CASE I.—R. J. O'H., 40 years, a wharf labourer, born in Sydney: An example of a condition which impels the sufferer to go the rounds of the medical profession. He was sent to me for consultation by Dr. W. McDonagh, of College Street.

History.—Two years ago he passed through a period of constant desire to make water, then a period of inclination to, and inability to, pass it, the fluid trickling away for a long time from commencing. He was treated for stricture and paralysis of the neck of the bladder.

Present Condition.—"No control over the water; it does not accumulate. Wear a urinal by day and use a pickle-bottle at night. Water flows better when lying. It runs away during sleep. Sleep from 8 p.m. to midnight. No pain. I have no reason for the onset of the trouble. The desire to urinate is so frequent and so urgent that I cannot retain the urine."

This constitutes an unsatisfactory anamnesis not indicating an ordinary pathological condition. The last sentence threw doubt upon the originality of some of the earlier ones in the history.

Examination.—The patient was a spare man with a worn, anxious face. The urine, from the urine bag, contained a trace of albumin and some red blood corpuscles. While lying on the table he had a desire to urinate; the stream with suddenness shot into the air. This sign effectually negatived the idea that vesical muscular paralysis was present; and when considered with the last sentence of the personal history was helpful.

A No. 10-13 metal sound passed easily along the urethra, and when moved across the fundus of the bladder met something projecting from the mucous membrane towards the trigone or urethral orifice. Both sides of this pendulous material could be visualized with the instrument. Bimanual, abdomino-rectal examination amplified the impression as to some abnormality being present in the *bas fond* of the bladder. No pain was complained of during the manipulations. Per catheter some urine flowed freely from the vesica. On microscopic examination red blood corpuscles were found in this specimen. Neither of the samples of urine examined was macroscopically smoky.

Diagnosis.—The genuine symptoms, that is those which were not alloyed with what he had been told, plus the signs in the case, led to the opinion that a something was pendulous in the bladder and that the urgent demands to micturate were its sequel. His general health had not seriously deteriorated, therefore it was not malignant. Blood in the urine as a visible factor to the patient or doctor was not present, therefore it was not an ordinary mucous polypus.

The evidence was ample enough to justify the opinion that surgical interference was necessary and that restoration to correct bladder function might be a sequel to cystotomy.

Operation.—A No. 12-15 sound was passed into the bladder. A crescentic, convex downwards, suprapubic incision was made through the tissues into the cave of Retzius. A transverse incision was made between the veins on the anterior segment of the bladder dome on to the point of the sound. The incision was increased laterally with scissors and the fingers. The bladder mucous membrane prolapsed through the wound, an uncommon happening. The prolapse came from the topmost portion of inner surface of the vesica posterior to the incision; it was pyramidal in shape; the epithelial layers were intact. A finger on its apex pressed the prolapse back into the bladder and everted it through a deficiency in the musculature at the apex of the dome behind the posterior edge of the incision, the peritoneum rising before the finger and its glove-like covering of mucous membrane. The internal urethral orifice was dilated to the form of a funnel. The epithelium of the trigone was superficially injured and the blood vessels dilated. Along the areolar tissue (the transversalis fascia layers) the peritoneum was dissected from the bladder as far back as the posterior edge of the mucous membrane pyramid, behind this edge the vesical muscle and the pyramid were cut away.

The various tissue layers were approximated and the bladder drained suprapubically.

Causation.—The sequence of events were most likely: A period of hyperdistension of the bladder; the pressure tore the vesical muscle; the mucous membrane projected distended through the tear; the water commenced to pass away along the urethra before the mucous membrane ruptured. This part of the lining membrane of the vesica prolapsed into the cavity and the torn surfaces of the muscle approximated. The apex of the pendulous pyramid soon irritated the nervous mechanism at the internal urethral orifice, the natural efforts being directed to expelling, along the urethra, the pyramidal projection from the *bas fond* of the organ and the series of events followed which kept him an invalid.

CASE II.—Mrs. A. M., *æt.*, 62 years, a multipara. This is an example of the class of patient who has suffered for many years without complaining or seeking advice.

Complaint.—"A lump in the neck, left side, for three years. No apparent alteration for a long time. No severe pain or other bad effect. Pain in the little and adjacent finger of the left hand, also now and then from the left elbow to the hand, especially if using the fingers. General health unimpaired." Weight two years ago, 12 stone (76.2 kilograms).

Examination.—The patient's weight was 72.3 kilograms (11 st. 5 lbs., 10 ozs.). At the base of the posterior triangle of the left side of the neck was a visible neoplasm, which distended the skin over the subclavian triangle and the adjacent part of the occipital triangle. It was beneath the superficial tissues and the muscles attached to the clavicle and the adjacent ribs. On careful palpation, the signs which indicated fluid contents were definite. An exploring needle gave blood-stained fluid in the syringe barrel.

Diagnosis.—A cystic tumour, benign, of slow growth, pressing upon the brachial plexus, the strands of this most involved being those which are sensory for the ulnar nerve. The prognosis was an increase in size with advancing disablement of the arm and greater pain from continued pressure on the nerve strands.

Operation.—A curved incision was made convex backwards from about the mid-point of the anterior edge of the trapezius muscle in the neck downwards and forwards to the posterior margin of the sternal insertion of the sterno-mastoid muscle. The superficial structures were freely dissected aside, the omo-hyoid muscle exposed and the outer edge of the *scalenus anticus* muscle defined. Bands of white tissue were seen stretched obliquely from above downwards and outwards across the most projecting part of the neoplasm. These, when carefully examined, were found to be the strands of the brachial plexus, which, stretched and pressed against the deep surface of the clavicle, caused the suffering and disablement. The first hint of their structure was given by the twitching of the muscles of the arm during the defining of their outer margin. The deep surface of the plexus was separated from the neoplasm and retracted towards the middle line. Several layers of delicate (areolar) tissue lay between the nerve strands and the superficial surface of the tumour. This was clean, bright, blueish-grey in colour and formed the deep boundary of the subclavian and lower part of the occipital triangles; evidently the wall of a cyst. Sixty cubic centimetres of a brick-red fluid were drawn from within it. The exposed portion of the wall was excised and the cut margins held by forceps. Its inner surface was a layer of soft red epithelial looking tissue. About 60 c.cm. of fluid contents flowed out, expelled by each inspiration. The index finger inside the cyst felt the upper edge and inner surface of the first rib for its whole extent, the transverse processes of the lowest cervical vertebræ, the bodies of sixth and seventh cervical and first dorsal vertebræ. The lowest part of the *longus colli* and the scalene muscles, were its muscular limitations. It was well posterior to the subclavian blood-vessels, also well posterior to and external to the carotid canal. It was a cyst, containing between 120 and 180 c.cm. of blood-coloured fluid, at the upper aperture of the left thorax, resting upon the dome of the pleura, its highest level in the neck about 3.75 cm. above the level of the posterior belly of the omo-hyoid muscle, in

the deepest fascial compartment of the neck. The close contact with the pleura forbade complete excision. Capillary blood oozed freely from the epithelial tissue, which was briskly rubbed with sterile gauze to destroy the excreting surface, and the cavity filled with iodoform gauze; these measures were carried out to prevent filling and to promote healing from the depth to the surface.

Report on the cyst contents by Dr. Tidswell:—

> The analysis of the fluid showed it to consist chiefly of serum, containing dissolved hæmoglobin and some red blood corpuscles (these latter perhaps operative). The sections of the little masses gave the appearance of fibrin undergoing organization into fibrous tissue. It looks as if the cyst had been formed by exudation of lymph; this clotted and formed the fibrinous nodules which became invaded by connective tissue cells which were converting it into fibrous nodules. The fluid was the serum expressed from the clot. The growth appears to be an adventitious cyst of some kind. I got no clue to its origin. There was no indication of malignant disease."

Was it a lymphatic cyst? Bland sutton on "Tumours" (1901, Ed. p. 185, *et seg.*) wrote:—

> (3) Lymphatic Cyst.—This appears as a congenital swelling in the neck, axilla and adjacent parts of the thoracic wall; it was formerly classed under the title "hydrocele of the neck."
>
> Lymphatic cysts are easily recognized. They are always congenital; even at birth they are sometimes of very large size and exhibit a preference for the anterior triangle, and in some instances extend into the axilla and superior mediastinum; sometimes they occupy the middle line of the neck and occasionally project into the posterior triangle. Their upward limit is, as a rule, indicated by the hyoid bone, but they have been known to reach as high as the parotid gland. . . . These cysts originate below the deep cervical fascia. . . . Their proneness to spontaneous cure explains the rarity of such cysts after puberty. . . . The walls of lymphatic cysts are often composed of tissue so vascular as to merit the term nævoid.

The pathologist and the author agree in the diagnosis of a tumour of endothelial origin in the region of the neck.

The macroscopic appearance of the cyst wall *in situ*, as the layers of areolar tissue were separated from it, suggested a distended serous tissue.

The surprise during the operation was finding the strands of the brachial plexus spread over the superficial surface of the tumour. This and the other anatomical relationships of the outer limit of the growth placed it as deep in the region occupied as any structure could be. Muscular and fascial layers completely separated it from the ductless glands which are in the lowest part of the visceral compartment of the neck.

For the patient the prognosis is of prime importance. She was operated on thirteen months ago, and in her letters complains of pains continuing in the hand and arm. The effects of many years of pressure on the nerve strands produced in them structural alterations, which are slow to disappear and which continuing cause the all-important and common subjective phenomenon, pain. How long will this last?

Case III.—L., male. This case is of the acute order and needed a diagnosis without loss of time, the safety of the patient and the line of treatment depending upon the correct interpretation of the signs and symptoms.

Dr. Mackay, of Lidcombe, asked me to see the patient. "Sick for one week. Pain in the right flank. Constipation. Temperature, with maximum daily variation, 38.3° to 39.4° C. Pulse rate, 72 to 100 per minute; urine free from albumin and cells, contains a trace of glucose."

Examination.—An abnormality is perceptible in the right loin. It is tender and fluctuating on bimanual pressure.

Diagnosis.—A pus mass in the perirenal tissue. Virulent pus; and in regard thereto the dictum is as urgent to-day as ever, *ubi pus, ibi evacuā*. Pain and incapacity made his demand for relief urgent, and compelled postponement of consideration of ætiology and pathology. Several important questions pressed for answers. Was it before or behind the kidney? This was not easy to answer with certitude, yet the direction of the surgical attack depended upon it. If behind, the anatomical structures were uncomplicated from the skin to the areolar tissue forming the kidney bed; if in front, the fatty capsule had immediate relationship to the moving peritoneum, to the non-peritoneal surfaces of the second part of the duodenum, the ascending colon and the hepatic flexure, and the track of any incision going deeper than the transversalis fascia would be in proximity to the parietal peritoneum and to the free surfaces of intestinal coils.

Operation.—Notes made in case-book after operation:—Oblique incision in the right flank to reach the posterior portion of the fatty capsule, or the posterior surface of the kidney. Exposed these and found that the fluctuating mass was in the planes anterior to the kidney and probably retro-colic, mayhap originating in a retro-caecal or retro-colic appendix. Closed the incision. Turned the patient on his back. Second incision commenced 2.5 c.cm. below the lowest part of the right costal margin, external to the edge of the rectus muscle. It was prolongd outwards, backwards and downwards, almost to the anterior edge of the first incision, about 2.5 cm. above the mid-point of the iliac crest. The muscular layers were widely separated, and in the areolar tissues the capsule of the fluctuating mass presented. The examining finger perforated the capsule and stinking pus gushed forth. A careful examination of the abscess wall was made with the fingers and a piece of it lifted out. In this was seen the opening of a tube, the appearance suggesting a ureter. A ureteral bougie, full extent, was passed along it without meeting obstruction. The opening of the tube was ligatured. The incision was prolonged a little backwards and the muscles more widely separated. The abscess area was thoroughly irrigated. The various tissues in front of the kidney were stripped from its anterior surface and pressed forwards and inwards. The organ was raised from its bed and the vascular pedicle isolated. Pressure forceps and scissors closed the vessels and set free the kidney. The blood vessels were tied off separately, and a tube was seen at the lowest part of the stump; it was raised and its presenting aperture examined. A urethral bougie was inserted and passed to its full extent. Conclusion: that here was a kidney with two ureters, one of which was exposed below the kidney pelvis in the wall of the abscess. It was surrounded by the pus and so nearly destroyed that it broke across when the finger was examining the abscess wall. When the margins of the incision were held aside, the edge of the liver and the gall bladder came into view. Two large drainage tubes were placed across the cavity and the incision was partly closed.

He convalesced much more satisfactorily than was anticipated. From entering hospital to leaving compassed five weeks and two days.

The stinking odour of the abscess contents betokened close proximity to, if not direct connexion with, the bowel lumen and gave rise to some apprehension for infection of the peritoneum or fistula formation.

There is, in my opinion, nothing as effective as a mixture of oil and spirit for causing a stinking suppurating area to clean up rapidly. In many a case it acts like a charm. Gauze soaked in a mixture of equal parts of castor oil and methylated spirit was used. The cleaning up, filling in and healing proceeded quickly. Castor oil makes a more bland mixture with the spirit than does the olive oil.

The state of the cicatrices nine months after the incisions were made: The posterior scar begins close to the last costo-vertebral angle, extends obliquely downwards and forwards and ends 1.25 cm. from the highest point of the iliac crest. It has not stretched and is 15 cm. long. The anterior scar commences 2.5 cm. below the anterior end of the ninth rib, and extends for 12.5 cm. downwards and backwards to near the anterior end of the other scar. It has stretched.

We regret to announce the death of Dr. Victor Asher, of Blaney, New South Wales, which took place on June 3, 1919.

Dr. Thomas Patrick McInerney, M.A., LLD., has been elected for a further period of twelve months to the office of Warden of the Senate of the Melbourne University. The election had been postponed for a period because no nominations other than that of the present Warden had been received.

We regret to announce the death of Dr. H. M. C. Dalton, of Murrumburrah, New South Wales, which took place on July 7, 1919.

The Medical Journal of Australia.

SATURDAY, JULY 12, 1919.

The Spirit of Research.

The medical profession comprises a few men who are trained to use their eyes, ears and fingers and who are constantly seeking to extend our knowledge of the human body and its ailments, and a very large number who apply this knowledge without contributing to it. Under ideal conditions every medical practitioner would be an original observer, but in the world as it exists, there will always be a majority who have neither inclination nor genius for research. By education these men may develope into sound practitioners, but they necessarily fail to become scientists. The reason for this is the want of selection of medical students. Young men and women rarely choose the medical profession as a calling on account of their ability to observe, their accuracy in thought and description and their aptitude to seek and find the explanation of observed phenomena. The school boy and girl are not taught real science and there are no means in our schools for sifting out the youth with leanings toward one or other sphere of mental activity. The practice of medicine would be better and the progress in medical science more rapid if machinery were introduced into schools for the collection in special classes of scholars who are possessed of minds capable of being scientifically trained. In certain schools in the old country some of the boys in the higher classes are drafted into special sub-divisions, usually called "line classes." These boys are often those whose parents wish their sons to go into the Army, for social reasons, but not because they have innate qualities fitting them for this calling. If our schools were actual places of education, rather than colleges of instruction, they would contain science classes to which youths who show aptitude in chemistry, physics and botany would be transferred. In these classes the dormant abilities of the scientist would be awakened by appropriate teaching and the taste for original research would be stimulated at an early age.

While the material in our medical schools is far from ideal, a great deal of it is lost, because the majority of the teachers are either incapable of including research into their daily lives or unwilling to enlist the assistance of students in their endeavours to add to the book of knowledge. As in the ordinary school, so in the medical school special machinery should be introduced to tempt those students who have ability, to participate in the greatest aim of the scientist. We have pointed out in recent issues the need for a remodelling of the medical curriculum and have referred on many occasions to the highly interesting and suggestive proposals made by the Edinburgh Pathological Club on the subject of medical education. One of the essentials for a medical school is the proper teacher. We would formulate the qualifications for a teacher in the medical school as follows. First and foremost, he must be a medical practitioner. A non-medical physicist, chemist or biologist has not the same view of his science as a medically trained physicist, chemist or biologist and his teaching will fail to appeal to the medical student as of practical importance to him in his future profession. The second essential is the attainment of some eminence on account of original work. The teacher should not be a mere parrot, repeating what others have said year in, year out. He must be actually contributing to the science which he teaches. If he possesses no ambition to unravel the mysteries of Nature, if he sits content with the knowledge that was taught to him, his students will fail as members of a progessive profession. In the third place he must have the gift of holding the interest of his students and of infusing enthusiasm for his subject into their minds. By recognizing the value of demonstration, he will relinquish dull, stereotype lectures and introduce real methods of training a half developed scientific mind. The precious minutes at his disposal must be utilized to convey to his pupils information that they can understand in its full significance. No lesson should be abstract; every point should have a patent reference to the prevention, alleviation or cure of disease or to the repair of injuries and defects. In the last place every teacher in the medical school must have the power to command order and respect from his students. Discipline is essential for education. Instruction may be imparted to a class of insubordinate individuals, but it is impossible to achieve success in

the training of the mind for a difficult calling like medicine without attention, deference and subservience.

A medical school equipped with teachers carefully selected would automatically become the training ground for research students and the value of original observation would become more and more obvious to every student entering its portals. These young men and women would live in an atmosphere of investigation. They would gradually realize that useful research must start with a correct appreciation of the problem requiring elucidation. It would be a matter of daily experience to them that facts must be separated from ideas or theories. They would learn to be critically analytical without any thought of a personal attack on the author of the views they are examining. They would refuse to accept evidence without proof and would seek the control for each experiment. They would develope patience in investigation, restraining themselves from rushing into print before they had tested the soundness of their arguments and the accuracy of their observations. In short, their training would develope in their minds the true spirit of research and they would become fired with the desire to learn the truth in their profession. A student trained in this manner by scientists properly equipped for the task of teaching would never start with a theory and seek its proof. He would be able to see things as they are and not as he would wish them to be. The army of patient, silent workers in the realm of science would soon assume ample proportions. This is one of the aims of a reformed medical education.

ALLEGED NEGLIGENCE.

There are two points of importance to medical practitioners which emerge from a case which claimed the attention of the County Court in Melbourne on June 16, 1919. A woman of the name of Winifred Waller was sent by Dr. W. J. Flanagan, a general practitioner, to the St. Vincent's Hospital, on May 9, 1917. Dr. J. Murphy, an honorary surgeon in the Ear, Nose and Throat Department, was asked to attend to her. Dr. Murphy was absent from the Hospital and in his place Dr. H. Barry Thomson, his fellow honorary surgeon in the Department, saw the patient. She complained of symptoms pointing to nasal obstruction, pharyngitis and chronic irritation of the throat. Dr. Barry Thomson referred to the history of this patient and discovered that Dr. Murphy had removed her tonsils in 1915. In the notes taken at the time, there was a paragraph to the effect that the patient had a deviated nasal septum and hypertrophied turbinate bones. Dr. Barry Thomson questioned the patient as to her symptoms and after a thorough examination arrived at the conclusion that her throat symptoms were caused by the nasal condition. He proceeded to apply a local anæsthetic to the nasal mucosa and to carry out a sub-mucous resection of the septum and a removal of the posterior third of the inferior turbinate bones. A week later she complained of irritation in her throat. An examination revealed some inflammatory reaction of a small portion of the adenoid tissue remaining of the right tonsil. This was removed under local anæsthesia.. She made a goood recovery and left the hospital in two weeks. It was noted that the patient complained during her stay of everything in the Hospital, including the treatment accorded her by the nurses and medical officers. She was regarded as a high neurotic person and a very difficult patient.

Towards the end of the year 1917, Dr. Barry Thomson received a letter from a solicitor demanding damages in compensation for alleged negligence in the treatment of Miss Winifred Waller. Subsequently the solicitor abandoned the case and the patient then sought the services of another solicitor. After an attempt which was relinquished, the case was pressed into the courts on June 16, 1919. The plaintiff claimed £99 damages on the ground that Dr. Barry Thomson operated on her nose instead of on her throat and, further, that she did not give her consent to the nasal operation. The evidence for the defence was a recital of the facts recorded above. The charge was met by the contention that since the operation was performed under local anæsthesia and no objection was voiced at the time, the consent of the patient was implied. Had she wished it, she could have walked out of the room and out of the institution. Miss Winifred Waller did not call any witnesses, but supported her claim in the witness box. She maintained that Dr. Barry Thomson neither questioned her nor examined her before the operation. This was denied. The nurses were able to support the statement by Dr.

Barry Thomson that the patient had not objected to the nasal operation. Dr. Flanagan stated that she was a very neurotic person. Dr. Murphy corroborated the account of the early part of the history and Dr. W. Kent Hughes and Dr. Frank Andrew testified in evidence to the excellent result of Dr. Barry Thomson's treatment. Dr. W. Boyd also gave evidence to the effect that he had examined her and had found her to be a profoundly hysterical person and most vindictively disposed toward Dr. Barry Thomson. The Judge regarded the plaintiff's story as wildly improbable and the jury found a verdict in the favour of the defendant.

The first point of importance in this case turns on the risk which a medical practitioner runs in dealing with a person of a highly hysterical disposition. The symptom complex of marked hysteria includes a tendency to gross imagination. The patient appears to be unable to think the truth; at all events she departs from it in many of her statements. While the patient suffering from classical hysteria may not be responsible for the untrue statements that she makes, the practitioner is thereby exposed to grave risk as a consequence of extravagant charges, unless he has taken due precautions to meet even the most improbable story. Dr. Barry Thomson did not have a real difficulty in this respect, for he had ready recourse to the evidence of the nurses and others present during his attendance on the patient. The risk is much greater in private practice. There are times when it is difficult to obtain a witness, and especially an independent witness. Judges are aware of the lying propensities of the hysterical individual, but unless there is refuting evidence of an acceptable nature, the case may go hard with the practitioner.

The second point is the need for obtaining the patient's consent before an operation is undertaken. This consent may be implied, but when the assertion that consent was not given is corroborated by credible evidence, difficulty will be experienced in persuading a judge and jury that the consent was implied. It is the practice in certain hospitals, both in Europe and in America, to require every patient entering a hospital to sign a declaration consenting to submit to whatever the attending medical officer deems to be necessary. An action in these circumstances would only lie if it could be shown that proper and skilled treatment was not applied. In private practice, and especially when the patient is unconscious from the effects of an anæsthetic, medical practitioners should always obtain the specific consent of their patient or of some responsible relative. Whether this consent should be in writing or merely spoken within the hearing of an independent witness must be decided according to the circumstances of the case. In any event, the practitioner is well advised if he runs no risks, but protects himself against all possible actions at law arising from malice or a misunderstanding.

THE PREVALENCE OF TUBERCULOSIS AMONG FEMALE INDUSTRIAL WORKERS.

The vital statistics of England and Wales for 1916 showed that the death-rate from tuberculosis which had been falling prior to the war, was no longer declining. A change in the death-rate of males revealed by civilian records cannot be regarded as warranting the inference that tuberculous diseases had become more prevalent, since so many able bodied men had left Great Britain for military duty. This objection does not, however, hold in the case of women among whom the death-rate showed a small but appreciable increase. This increased mortality from tuberculosis did not affect women over 45 years of age. In his official review Dr. Stevenson remarks that many thousands of women were being subjected to the conditions of the workshop which had probably tended to maintain the mortality of men of working ages in recent years. Young women had been exposed to the risk of tubercular infection as well as to the danger of pulmonary disease predisposing to tuberculosis which they would have escaped by following their usual occupations. From this cause and from the effects of factory conditions on women already infected, a number of women had probably died who would have survived under the conditions previously in existence.

An enquiry into the prevalence and ætiology of tuberculosis among female munition workers has been carried out by Captain M. Greenwood and Dr. A. E. Tebb of the Welfare and Health Section of the Ministry of Munitions with the object of ascertaining whether the suggestions of the Registrar General can be supported by further evidence.[1] In the first place an analysis has been made of the number of deaths occurring from tuberculosis among women employed in different trades. This analysis shows that a slightly greater number of women died from tuberculosis during 1916 than would have been expected merely as a result of the redistribution of women in respect to the number employed in various industrial occupations and in domestic duties.

A study of the divergences of mortality due to occupation among males was undertaken to ascertain whether a greater incidence of tuberculosis was to be expected in connexion with different occupations.

[1] An Inquiry into the Prevalence and Ætiology of Tuberculosis among Industrial Workers with Special Reference to Female Munition Workers, by M. Greenwood, Capt. R.A.M.C.T., and A. E. Tebb; Special Report Series, No. 22: Medical Research Committee, National Health Insurance; 1919.

An examination of the mortality-rates at different ages showed that the death-rate from pulmonary tuberculosis of males employed in agriculture at the ages of 25 to 36 years was 1.10 per 1000 living, of fishermen 1.40, of ship-builders 1.58, and of shoemakers 3.27. The changes in mortality from tuberculosis among those employed in different occupations may be ascribed to industrial selection, industrial status and to industrial environment. By industrial selection is meant the selection of some occupation by those possessed of some special type of physique. It would be expected that stronger and more vigorous men will be found in ship-yards than in boot factories, so that a higher mortality might be expected among shoe-makers even if the occupation were equally hygienic. Industrial status affects the remuneration of those employed, because occupations, making equal demands on the physique, are not equally well remunerated. Obviously, the higher the remuneration of the employed person, the greater will be the opportunities for securing a better home. It follows that status must have a powerful bias on the mortality-rate of an occupation. The industrial environment involves the conditions under which the daily work is undertaken. In this enquiry an attempt has been made to determine the effect of industrial environment apart from that of industrial selection and industrial status. A study has been made of the ratio between the death-rate from all causes except tuberculosis and the death-rate from tuberculosis. It has been assumed that the death-rate from all causes except tuberculosis will be a proper measure of the effect of industrial selection and industrial status. It has been found on this assumption that men employed as book-binders, printers, tailors and cabinet-makers experienced an amount of tuberculosis 25% or more in excess of the quantity predicted from its death-rate from other causes during four decennial periods. Hatters, hosiery-makers, shoe-makers and hair-dressers show a similar amount of tuberculosis in three out of the four decennial periods. In six groups, namely, those of:—farmers, fishermen, malsters, chemical manufacturers, plate-layers, brick and tile makers, the amount of tuberculosis was 25% less than the predicted quantity. It would thus appear that there are certain occupations, not associated with a specific risk of tubercular infection, in which the incidence of the disease is too heavy to be explained as a result of inferior physique independent of the environment of the factory. Similar statistical evidence is not, however, available for women. There is also no evidence that women following the occupations in which tuberculosis is prevalent among males, show any increased morbidity from tuberculosis. An investigation of the regional destribution of mortality among women in England and Wales in 1911 shows a decreasing correlation between the mortality from tuberculosis and the mortality from all other causes among women at ages from 15 to 45 years in rural districts, urban districts, 33 large industrial towns and metropolitan and county boroughs. From this it may be concluded that some factor other than selection by physique is important in the genesis of pulmonary tuberculosis. It does not appear to these investigators that domestic overcrowding can be a sufficient explanation of the divergency.

In examining the war-time statistics of England and Wales Captain Greenwood and Dr. Tebb have made use of the proportionate mortality. It is, however, a question whether a knowledge of the total number of deaths occurring between certain age limits and of the number of deaths attributed to a single disease for each of a series of groups supplies evidence of variations in the incidence of the disease in question. Accepting that some reliance can be placed on these ratios, these investigations show that there is a substantial correlation between the ratio of deaths due to tuberculosis to deaths from other causes within the age group and the actual mortality-rate from tuberculosis at that age group. It would, therefore, seem that the proportionate mortalities for tuberculosis within a group of districts would serve for the prediction of the difference between the average mortality for that group of districts and the average general mortality. The correlation is not high enough for the prediction of the death-rate in any particular district. By using this method it is found that the increase of the ratio is larger among industrial towns than elsewhere, when the proportionate mortalities for 1913 and for 1916 are compared. Too much stress must not be laid on this fact since other factors, such as the movement of population from place to place, might influence the results. As far as it goes, the evidence supports the contention that industrial employment introduces a special factor making for the development of tuberculosis among women.

GREEN-PRODUCING STREPTOCOCCI.

Cases of pandemic influenza have been present either in quarantine or among the community at large since October, 1918. In spite of this fact and in spite of the relatively large cost in lives during each wave of the pandemic in the several States, the medical profession has waited in vain for a report of the frequency in which the various strains of pneumococci, streptococci, Pfeiffer's bacilli and other bacteria occur in the tissues, exudates and excretions of persons attacked with the disease. Bacteriologists have had access to the material and ample time has elapsed to have enabled them to examine with care and precautions very large series of cases. As a result, no one has yet been told whether one type of organism characterizes the outbreaks in Australia. Without this knowledge all assertions concerning the power of protection of vaccines or the value of anti-sera in the treatment of the disease are at best hazards. Dr. E. C. Rosenow has brought forward some very suggestive results of experimental observations carried out during the American epidemic.[1] Some years ago he noted that the pneumococcus-streptococcus group of organisms underwent definite changes in morphology, infecting power and immunological reactions when subjected to the influence of an altered environment. He conceived the idea that the pneumococci or the streptococci associated with the pandemic might differ from the ordinary types of these organisms. His attention was directed to the streptococci which produce a green colouration when grown on blood agar. These organisms have been found almost constantly

[1] *Journal of the American Medical Association*, May 31, 1919.

in influenza. While the growths from the blood were sparce, the growths from the sputum, lung exudate and peri-bronchial lymphatic glands were profuse. Intraperitoneal injections of the sputum or of cultures of this green-producing streptococcus derived from sputum or other influenzal sources into guinea pigs, resulted in a massive hæmorrhagic broncho-pneumonia. The lung changes induced by these organisms differed from those induced by pneumococci of type IV. (the type most commonly found in connexion with the American form of influenza) by the increased volume of the organ. When the streptococci were introduced directly into the trachea the difference was even more marked. The macroscopical and the microscopical changes in the lungs of these guinea pigs were indistinguishable from those met with in the lungs of persons dead of influenza with pneumonic complications. Moreover, a comparative study of the strains demonstrated that the streptococci from influenza patients possessed a marked and peculiar virulence. Further, he put the strains to an immunological test and found that, while sub-culture, passage and other alterations in environment led to distinct variations, these organisms were agglutinated specifically by the serum of persons suffering from the disease. Group agglutination was noted when immune sera specific to *Streptococcus hæmolyticus* and at times to pneumococcus of type II. were used. The agglutinins specific to the green-producing streptococcus were regularly absorbed by previous treatment with streptococci derived from influenza patients. Dr. Rosenow does not draw any conclusions at present as to the relationship of the green-producing streptococci to influenza, but contents himself with a record of his observations.

INFLUENZA AND PEACE CELEBRATIONS.

It has been announced that among the arrangements for celebrating peace in Sydney on July 19, 1919, are a football match and other sporting engagements. The public of New South Wales received the intimation that the day of rejoicing in the State would coincide with the celebrations in other parts of the Empire with evident satisfaction. On the other hand there is no need to transform a day of jubilation into an actual menace. In our issue of June 28, 1919, we pointed out that a great spread of influenza infection followed the holding of a football match in Sydney on June 9, at which approximately 40,000 persons were assembled. The aggregation of large crowds of persons standing in very close proximity, shouting and otherwise displaying excitement, provides an ideal condition for the spread of infection. It is assumed that the present wave of infection will have receded to a considerable extent by July 19, but an unwise action might rekindle the flame and result in the death of a further thousand people.

PNEUMONIC INFLUENZA.

The Minister for Trade and Customs has proclaimed in the *Commonwealth of Australia Gazette*, No. 79, of June 20, 1919, (*i.*) that the State of Western Australia is infected with a quarantinable disease, to wit, influenza; (*ii.*) that this State shall be a quarantine area, and (*iii.*) that all persons and goods in this quarantine area shall be subject to quarantine.

The Minister of Public Health of New South Wales has caused a proclamation to be published in the *Government Gazette* of June 27, 1919, requiring all persons within the municipal area of Grenfell to wear a mask while in a public motor 'bus, a public lift, a shop and a workroom where more than five persons are engaged (except where the employees are engaged in hard manual labour), or when attending an auction sale. Persons are not allowed to remain in a licensed bar for longer than five minutes. All billiard rooms, reading rooms in libraries, music halls, picture shows and other places of indoor amusement have to be closed and private schools are allowed to remain open under defined restrictions. All Sunday schools have to be closed, indoor meetings are prohibited and religious services are permitted provided that the members of the congregation are masked and are not closer together than three feet.

Similar proclamations have been published in the *New South Wales Government Gazette* of June 30, 1919, in regard to persons within the shire of Culcairn, the municipality of Bingara and the Gwydir Shire and the municipality of Tenterfield, while on July 3, 1919, a further proclamation is published dealing with persons in the town of West Wyalong. The restrictions imposed on persons in the municipal areas of Narrandera and Narrabri on June 11 and June 17 respectively, are cancelled.

In the *Queensland Government Gazette* of June 23, 1919, the regulations relating to influenza, prohibiting overcrowding in tram-cars, trains or other public vehicles which were published on May 29, 1919 (see *The Medical Journal of Australia*, June 14, 1919, page 498), are repealed.

The Commissioner of Public Health of Queensland has ordered in the *Queensland Government Gazette* of June 26, 1919, that the restrictions previously applied to other parts of Queensland, shall be imposed on persons within the Shire of Hinchinbrook.

The Commissioner of Public Health of Western Australia, Dr. R. C. Everitt Atkinson, acting under the provisions of the *Health Act, 1911-1918*, ordered on June 9, 1919, a certain defined area to be quarantined. The order further forbids persons to leave the area until they have been medically examined and found to be free from dangerous infectious disease and until they produce a certificate to the effect that they have not been in contact with any person suffering from influenza within a period of seven days.

SIR JAMES BARRETT IN EGYPT.

Sir James Barrett, K.B.E., has received the following letter from the War Office, dated January 17, 1919:—

> I am commanded by the Army Council to acknowledge the receipt of your letter of December 18, 1918, and to acquaint you, in reply, that the finding of the Court of Inquiry is confidential and permission cannot be given for its publication.
>
> I am to add, however, that as a result of this Court of Inquiry the Council are completely satisfied that no blame is attached to you and that you are at liberty to make what use you like of this letter subsequent to the date of your leaving the service and ceasing to hold a commission in the Royal Army Medical Corps.

We congratulate Sir James on the complete vindication of his position which was attacked during the early stages of the war.

University Intelligence.

THE UNIVERSITY OF SYDNEY.

An adjourned meeting of the Senate of the University of Sydney was held on June 16, 1919, at University Chambers, Phillip Street, Sydney.

On the recommendation of the Faculty of Arts, By-law Chapter XVI., Section 18, was amended so as to read as follows:—

> The candidate for honours who shall have most distinguished himself at the M.A. Examination in Classics, Mathematics, Logic and Mental Philosophy, English, Modern History or French and German jointly, shall, if he possess sufficient merit, receive a bronze medal.

The following recommendations from the Joint Committee for Tutorial Classes were adopted:—

> (*a*) Dr. Phillips, M.A. (Melbourne), D.Sc. (London), Lecturer in Experimental Education and Psychology at the Teachers' Training College, to be appointed Tutor in Psychology.
>
> (*b*) The Rev. E. H. Burgman, M.A. (Syd.), Warden, St. John's College, Armidale, to be appointed as Tutor in Sociology.
>
> (*c*) Mr. E. S. Jerdan, B.A., at present Tutor in History, to be appointed as Tutor in Literature also.

Abstracts from Current Medical Literature.

ORTHOPÆDIC SURGERY.

(10) Ununited Fracture of the Patella and of the Olecranon.

Fred H. Albee (*Surg., Gynec. and Obstet.*, April, 1919) condemns the use of silver wire in cases of long continued mal-union or non-union of the patella and of the olecranon. The wire often breaks in the twisting without the surgeon's knowledge. It is also non-absorbable and exercises a destructive influence on the bone with which it is in contact. Kangaroo tendon is preferable for fixation purposes in all fractures. In ununited transverse fracture of the patella the author commends Rogers' method, which consists in applying an autogenous graft from the tibia to the front of the patella to bridge the line of fracture. He thinks, however, that the technique could be improved by employing his own inlay method. A tourniquet is applied and the incision exposes the patella and the anterior surface of the tibia. The fragments are approximated after fibrous tissue has been removed; in the case of fibrous union the ends of the fragments are freshened. Rents in the fibrous capsule are repaired with kangaroo tendon. A bed for the inlay is prepared consisting of two transverse arms united by a perpendicular limb. Measurements of this bed are then transferred to the tibia either by calipers or by a wax model, and the inlay is cut with a motor driven saw. Security of the inlay is obtained by stitching the periosteum of the patella over it with chromic gut and also by a figure-of-eight suture of kangaroo tendon passing from the quadriceps tendon to the *ligamentum patellæ*. The limb is immobilized for four weeks. In vertical, irregular or comminuted fractures of the patella there is usually very little separation of the fragments, and fixation for five or six weeks, preferably in plaster-of-Paris extending from the toes to the groin, is advised. In recent fractures of the olecranon fixation with kangaroo tendon is believed to be the best method of treatment. In ununited fracture an inlay, or a sliding graft fixed in position with kangaroo tendon, or a peg driven through the end of the olecranon, is advised.

(11) Continued Extension in Congenital Dislocation of the Hip.

There are certain dangers in the Lorenz method of treating a congenital dislocation of the hip including death from anæsthesia and actual anatomical damage. John W. Churchman (*Surg., Gynec. and Obstet.*, May, 1919) seeks to eliminate these by substituting continuous extension for the violent manipulation under anæsthesia. For this purpose a new type of extension frame has been devised to keep the lower limb extended in any desired position of abduction, and at the same time to keep up any desired type of rotation. After reduction the Lorenz technique is followed and the hip fixed in plaster. The patient in the cases reported was not a good subject for a successful result. She was eight years of age, the acetabula were very shallow and the dislocation was bilateral. The frame used consisted of 3 cm. piping bent into a semicircle at first, but later a complete circle was used, fixed to the head and foot of the bed and with the piping drilled at intervals of about 5 çm.. Pins, supporting a pulley through which the extension weight was suspended, were bolted into the frame on either side. With this frame abduction to any desired angle can be obtained. Rotation is controlled by adhesive strapping, which encircles the thigh and is led off to the frame on either side. In the patient on whom the frame was tried, the angle between the femora at the commencement was 50°; after thirty-eight days it had increased to 180°. This result could probably have been obtained much more rapidly. Anteversion of the femur on the left side gave considerable trouble, but appeared to have been permanently overcome by the rotating straps. After complete abduction "a whiff of chloroform" was given and the heads of the femora slipped into the acetabula. Abduction was gradually reduced and the limbs finally fixed in plaster, from the waist to the knees, at an angle of 35°, after which weight bearing was allowed. There was a fairly good anatomical result with an excellent cosmetic effect.

(12) The Treatment of Injuries of Peripheral Nerves.

Noel H. M. Burke (*Arch. Radiol. and Electro-Therapy*, July, 1918) sets out to prove that some form of electrical treatment is absolutely necessary in nerve injuries. He states that the attitude of those who do not believe in electrical treatment, is due to ignorance of the possibilities of the various forms of electricity, to custom and fashion in treatment and to the fact that electro-therapeutists have been too modest. The author briefly describes the clinical and pathological changes which occur in the injured nerve and in the muscles and other structures supplied by the nerve. As regards treatment the obvious aim is to keep up nutrition. For this purpose massage is useful but is insufficient. Electro-therapeutists have observed improvement by using electrical treatment in addition. Warmth is beneficial whether produced by extra covering or such agents as whirlpool baths. A better result is obtained by diathermy and galvanism, while the sinusoidal and faradic currents have nutritive effects. In a severe stage of paralysis the actual contraction of the paralysed muscle is not advocated but can be employed later when recovery is proceeding and voluntary power is expected to return. Even in the absence of electrical response, rhythmic galvanic or sinusoidal currents are said to produce good effects. The methods most favoured by the author for the production of contractions are Bristow's with the faradic current and Cumberbatch's with the galvanic and water resistance. As regards posture of paralysed muscles, the author does not believe in rigidly maintaining the position of rest, but gives joints their full range of passive movements. Splints with springs to recover the position of rest are to be preferred to rigid splints. In the treatment of injury of the actual nerve the galvanic current can be used without fear of doing harm. The electrolytic action helps nature to remove offending particles. Massage at the site of lesion in the early stages is inadvisable, but diathermy may be used. In nerve compression galvanism, heat, massage and X-rays are considered useful. In complete division the passage of an electric current seems to stimulate regeneration. The control of the treatment of nerve injury should be under physiotherapists.

(13) Distortion of the Pelvis from Posture.

The habit of standing on one leg is common, especially amongst women. This leads to changes in the position of the pelvic bones. When the weight is carried on the right lower limb, for example, the left innominate bone is rotated backward and the right innominate bone is flattened, with a change in the relative position of the ilium, which is rotated to the left on the ischium and pubis. There is an increased prominence of the crest of the left ilium and a relative elevation of the left anterior superior spine. This could lead to an error when measuring the length of the lower limbs. William Jackson Merrill (*Amer. Journ. Orthop. Surg.*, December, 1918) suggests the following measurements to overcome the error due to distortion of the pelvis. The patient stands or lies in a symmetrical position. Measurements are then made from the floor or the plantar surfaces of the feet to the upper border of the tubercle of the pubis, to the anterior superior spine of the ileum, from the summit of the crest of the ileum, from the posterior superior spine of the ilium and from the tip of the great trochanter of the femur. The measurements of each side are combined and the difference noted. Another method of determining the difference in length of the lower limbs is to take a skiagram with a piece of wire placed at right angles to the vertical axis of the body and in the field which includes the pelvic bones and the head of the femora.

MORPHOLOGY.

(14) The Structure of the Synapse of the Mauthner Cell.

The problem of the synapse and the transmission of a stimulus from one nerve cell to another has attracted the attention of many investigators for more than a century, and even now is one upon which enlightenment is still lacking. Kiyoyasu Marui in the *Journal of Comparative Neurology* (Vol. 30, No. 1, December 15, 1918) presents his findings concerning the finer structure of the synapse of the Mauthner cell, with especial consideration of the Golgi-

net of Bethe, the nervous terminal feet and the nervous pericellular terminal net of Held. As material for his investigations he used serial sections of brains of the adult fishes *Ameiurus nebulosus* and *Carassius auratus*. In all 97 series of normal fish brains were studied after preparation by 9 different methods. In the axone cap and on the surface of the Mauthner cell a Golgi net was very distinctly demonstrated, particularly in those prepared by Levaditi's method. This net is of a glious nature and is in close relation to the nervous elements of the synapse. The unmedullated parts of the nerve fibres are also enveloped in a sheath of glious tissue of which the finer structure is as yet unknown. The hypothesis of Held concerning the existence of two kinds of net on the cell surface is denied. There exists only one net structure, which is formed by both nervous and glious tissue. The contact theory is to be regarded as a histological impossibility as the terminal feet are not specific contact organs, but the points in the course of the axone fibres where the dissolution of fibres takes place. The continuity of the intra- and extra-cellular neurofibrils is very clear. The intra-cellular neurofibrils do not form any reticulum in the Mauthner cell, nor was any net structure seen in connexion with the nervous terminal feet.

There have been abundant researches on the neurocytological manifestations of the nerve cell in fatigue, but Kiyoyasu Marui believes his present researches to be the first undertaken to investigate the histological alteration of the synapse in fatigue (*Jour. Comparative Neurology*, Vol. 30, No. 3, April 15, 1919). This is probably due to the fact that the structure of the synapse has not yet been conclusively demonstrated in the normal condition but from work previously published, the author believes his results have been sufficiently definite on this point to permit him attempting experimental work on the pathological condition, more particularly as regards fatigue. The material used were small fishes, a resting non-fatigued control being provided in each experiment. The fish experimented on was fatigued (or forced to activity) by being placed in a stream of running water, against which it was compelled to swim in order to maintain its equilibrium. The duration of the experiment varied from 24 to 98 hours and upon complete exhaustion the fish was decapitated, the brain quickly dissected out and fixed. In all 122 series of normal and fatigued brains prepared in 9 different ways were examined. Careful investigation of the cell body, as well as the synapse of the fatigued Mauthner cell, revealed a number of interesting findings. The cell body was found either swollen or shrunken, as was the nucleus and nucleolus, which often assumed an angular or otherwise irregular shape. The turgescence was regarded as the result of over activity and the shrinkage as that of exhaustion. The Nissl substance was in an advanced stage of chromatolysis. In the nervous structure of the synapse no definite alteration could be determined, but the synapse showed a number of amœboid glial cells with basophile granules. Fat drops were demonstrated in the glia cells and in the cells of the blood vessels. In many cases the reticular glial structure of the synapse appeared to deviate markedly from its normal configuration and was in parts broken up. This was interpreted as being due to the detachment of the amœboid glia cells from the reticulum and in part also to the loosening and dissolution of the net beams. The appearance of the amœboid glia cells showed that some catabolic process occurs in the synapse as an effect of pathological nutritional conditions in fatigue.

(15) A Quantitive Study of the Purkinje Cells in Human Cerebella.

In the *Journal of Comparative Neurology* (Vol. 30, No. 2, February 15, 1919) Robert S. Ellis presents the results of a study whose main purpose was to show the numerical differences in Purkinje cells in normal, subnormal and senescent human cerebella. To obtain norms the cerebella of four human beings in the prime of life were obtained at autopsy in a general hospital. This gives a close approximation to the condition present in the average cerebellum as it appears in the hospital population, a group probably somewhat below the average for the community at large in the development of the nervous system. Nine cerebella from mental defectives were selected, while from subnormal infants six specimens were examined and the cerebella of five old people were studied as examples of senescent brains. During these studies the cerebellum from a man suffering from paresis was obtained and is included as an example of what may happen in this condition. In cases of extreme mental defect due to agenesis or to the early action of toxins during intra-uterine life, there is an evident deficiency in the number of cells. Similar reductions are found in senescence and paresis. In the subnormal cerebella the evidence indicates that the normal number of cells has never been present in a developed form. In the senescent and paretic cases, however, the small number is due to disintegration. The anterior lobe of the cerebellum shows the greatest deficiency in cells in both the subnormal and senescent cerebella, while the biventral lobe shows the greatest variation in both types of cases, in some greatest loss and in others the least loss. The differences between the two hemispheres average less in subnormal than in normal cerebella. This probably has a relation to the differences in the degree of unilateral dexterity found in normal and subnormal individuals, *i.e.*, the former are usually distinctly right or left handed as compared with the subnormal who tend to be more ambidexterous. The deficiency in cell numbers affords some explanation of motor defects found in subnormal individuals. It shows also that in idiocy and imbecility we may expect to find the whole brain defective rather than the frontal lobes only, while the higher grade of defectives (morons) probably show very slight deviation from the normal.

(16) Association and Colour Discrimination in Fishes.

Gertrude M. White records the results of a series of experiments undertaken to determine the ability of certain fishes to form associations and to discriminate colours and patterns (*Jour. Experim. Zoology*, Vol. 27, No. 4, February 20, 1919). Compared with land vertebrates fishes live in a constant medium where little premium is put on sensory specialization. Their behaviour is stereotyped. Their associations are simple, few in number and are not readily modified, though they are often fairly permanent when once formed. Learning seems to consist for the most part in the gradual elimination of useless movements and the establishing of useful ones. There is little evidence of the formation of new types of movement. A considerable period of training in concentrating the attention upon the object in view seems to be necessary before association can be formed. Fishes do not seem to be capable of anything which might properly be called a concept, nor to exhibit memory in the sense of having ideas about absent objects. They do react more readily to present objects with which they have had experience in the past, particularly if this experience has been repeated several times. After some repetition of a reaction they form associations and habits. There seems to be no clear proof of the subordination of the individual's welfare to the general good of its kind nor any decided development of a social or gregarious instinct.

(17) The Life History of Ascaris Lumbricoides.

According to B. H. Ransom and W. D. Foster the ova of *Ascaris lumbricoides* after ingestion hatch in the intestine. The larvæ are found shortly after in the liver and portal vein. They then travel to the lung through the blood stream and from the lung they again reach the intestine by way of the œsophagus and trachea. It is at this stage that the further development of the *Ascaris* may be arrested. If the animal infested be a suitable host, development proceeds to maturity, but if the host prove unsuitable, they are soon passed out with the fæces. Their inability to attain maturity in a host such as the guinea-pig or rabbit is regarded as evidence that the particular animal offers conditions which are inimical to the further development of the *Ascaris*. The authors discredit the view that rats and mice serve as intermediate hosts of the *Ascaris* of man. It is considered possible that *Ascaris* and perhaps some of the closely related forms may be the cause of certain obscure lung affections in children. The authors found that *Ascaris* eggs injected subcutaneously hatched out. The larvæ migrated to the lung and the subsequent development took pace, as described above.

Medical Societies.

MELBOURNE PÆDIATRIC SOCIETY.

A clinical meeting of the Melbourne Pædiatric Society was held at the Children's Hospital, Melbourne, on June 11, 1919, the President, Dr. Stewart Ferguson, in the chair. Cases were exhibited and discussion ensued, as follows:—

Dr. F. Kingsley Norris presented a patient under the care of Dr. A. Jeffreys Wood.

Case I.—Child, *æt.* 13 months, with *cystic hygroma of the neck*. There was a swelling in the left and anterior aspects of the neck. The enlargement had been present since birth and occasioned the child much inspiratory difficulty and cyanosis, particularly when the infant was put down to sleep. The tumour had gradually increased in size since birth and varied in size with crying and coughing.

They had to consider a diverticulum from the pharynx, branchial cyst and cystic hygroma. He mentioned that exploration with a record syringe resulted in approximately 4 c.cm. of clear fluid being obtained with difficulty.

In the ensuing discussion the weight of opinion favoured a cystic hygroma as being the underlying pathological condition.

With regard to treatment, Dr. A. Jeffreys Wood stated that he had seen operative interference recently advocated, but he, personally, was very chary of surgical measures in these conditions. He had had experience of four cases in which the swelling had become idiopathically inflamed and subsequently disappeared.

The fact that cystic hygroma was seen so frequently in children and was never encountered among adults had been used as an argument to support the contention that idiopathic inflammation must frequently occur. In the particular instance under discussion, the embarrassment of respiration rendered the outlook serious. He favoured aspiration, in the hope that idiopathic inflammation, with consequent recession, would supervene.

Dr. H. Douglas Stephens said that he had found that these tumours did not lend themselves satisfactorily to aspiration; he considered that this was due to their spongy structure.

Dr. Stewart Ferguson suggested diathermy as a line of treatment; the application could be at first limited and made of progressively increasing intensity.

Case II.—Dr. W. Atkinson Wood exhibited a boy with *tubercular epiphysitis of the head of the femur*. The discussion on this case centred on the interpretation of the radiogram, concerning which some difference of opinion was expressed. The Wassermann test yielded a negative result, as did the von Pirquet test.

Case III.—Dr. W. A. Wood further showed a case of *congenital dislocation of the hip* with skiagrams. One skiagram was taken when the child was two years of age and a second, taken twelve months later, showed a good acetabulum. The child had been treated by immobilization of the reduced hip in plaster for twelve months and was shown to walk very well.

The opinion was expressed that the good result would be best conserved by not allowing too much use of the limb for some months.

Cases IV. and V.—Dr. H. Douglas Stephens introduced for discussion the case of two brothers, aged respectively 16 and 12 years, both exhibiting *spastic paralysis*. The family history in this instance was remarkable. The father and mother were to all appearance healthy individuals. The first and second children, girls, were likewise healthy. The third, according to the mother's statement, had been "lax in all his muscles, unable to sit up, and died of typhoid at 2¼ years of age." The fourth was the boy now exhibited, *æt.* 16. The fifth, a girl, was quite normal, whereas the sixth, a boy, aged 12, was the second patient he was bringing before the meeting. The seventh child, a girl, died at seven months, and although she never sat up, the mother had always considered her mentally bright. The eighth child had been unable to suck and died at three months. There were no miscarriages. The Wassermann reaction in each of the two cases before them was "partial." Dr. Stephens proceeded to explain that the mother's mother had married twice and of the eight children of the first family four never walked and were mentally affected. The mother of his two patients was the only one of the second family and she was an alert and intelligent woman. The mother's mother's sister (great-aunt of the two boys being shown) had two boys, both unable to walk and mentally dull.

Thus it would appear that this peculiar affection tended to affect the males of the family, whereas the females, though apparently unaffected, transmitted the condition to their male offspring.

Dr. Stephens next gave a clinical description of the two boys. They had never walked; rigidity had not been noticed at birth, but was noted when the child reached the age of two. The rigidity was progressive. There were no fits or convulsions in the family. The elder boy exhibited a pulmonic systolic bruit, with spasticity of the arms and wasting of the interossei. The legs were very spastic; lordosis was extreme and developed within the last three years. Speech was hesitant and stammering and articulation very imperfect.

There was no lordosis in the case of the younger boy and very little wasting of the interossei. However, he was very much more mentally affected than his elder brother.

In neither case was there any sensory or trophic disturbance.

Dr. Stephens was of opinion that obstetric difficulties failed to account adequately for the condition. Undoubtedly the births had been difficult; but this applied to the first four children, of whom two were normal and two abnormal.

The cases were quite different from the common type of spastic diplegia and he thought that they exhibited many of the features of amyotrophic lateral scelosis.

Case VI.—Dr. H. Douglas Stephens invited suggestions for treatment in the case of a boy with deformity of the hip supervening on an *acute pneumococcal epiphysitis and arthritis* and for which he had operated 3½ years ago.

The thigh was flexed to an angle of 45°, with a very limited range of movement, and there was some retardation of growth of the affected side. In his opinion, shortening of the limb was inevitable, but he thought that some measure might be attempted which would overcome the flexion. At the same time he was disinclined to adopt any plan of treatment necessitating the use of much force.

Dr. A. Jeffreys Wood suggested that sub-trochanteric osteotomy, with subsequent abduction, might result in less tilting of the pelvis.

The question of arthroplasty was discussed, but as the head of the femur had been separated at the time of the original epiphysitis, and removed at operation at that time, Dr. Stephens did not recommend the employment of the trochanteric extremity as a new femoral head, on account of the difficulty of keeping it in position.

Case VII.—Dr. Stephens's third case was that of a girl, aged 3½, exhibiting oxycephaly. The child had commenced to walk at the age of fifteen months. When seen at the age of three years there was evident a bony tumour of the calvarium over the site of the anterior fontanelle and an irregular depression, with heaped edges, about 7.5 cm. behind the tumour in the mid line. Exophthalmos was pronounced, but there was no nystagmus. She had fits at about the age of ten months, but had had no fits latterly. The child was quite well in other respects and was bright mentally. The reaction of the child's blood to the Wassermann test was partial; that of the mother was negative. The details above given were from notes taken on October 4, 1918. When seen on June 6, 1919, the child was less quick at understanding. Her hearing was defective and she was very irritable. She complained that she could not see unless the electric light was on.

Dr. Stephens demonstrated in skiagrams a curious marbling of the skull bones and a depression at the back of the skull near the lambda, suggestive of bone deficiency. The base of the skull was apparently unaltered.

In the discussion which ensued Dr. A. Jeffreys Wood quoted an instance recently described that had resembled Dr. Stephens's patient very much, but also showed polydactylism. Dr. Stephens said that he had found references to this condition very scanty in pædiatric literature. From what he could gather, it appeared that the bosses should be removed, otherwise the exophthalmos increased, with impairment of eyesight and mentality. The growths consisted of spongy bone and frequently grew upwards from the base of the skull. As regards the eyes, two develop-

ments recorded as occurring in oxycephaly were optic atrophy and *retinitis pigmentosa*. Were these to be taken as evidence of pressure and an indication for operation?

Dr. Jeffreys Wood remarked that he thought the exophthalmos was evidence of pressure.

Dr. H. Hume Turnbull considered that if the optic atrophy were of the primary type, operation would be of little use. Some discussion ensued on the differential diagnosis of the bosses from dermoids, leontiasis and chloroma, and it was eventually agreed that the question of operating turned on careful observation at intervals of the *fundus oculi*.

CASE VIII.—Dr. R. A. Wallace showed the case of a girl who had been attending the Out-Patient Department for six or seven years with very obstinate skin lesions. After demonstrating the lesions, which also affected the conjunctiva, Dr. Wallace stated that the only medication which had seemed to effect any improvement had been extract of the three glands. He considered it a type of *urticaria* in a child with some derangement of the internal secretions.

Dr. H. Douglas Stephens remarked that the lesions, with their particularly obstinate nature, pigmentation and periodical crops of vesicles, were strongly suggestive to him of *dermatitis herpetiformis*. He had, however, never seen this condition associated with phlyctenular conjunctivitis, although conjunctival herpes did occur.

In reply to a question, Dr. Wallace stated that, as yet, he had not tried X-ray treatment.

Dr. Reginald Webster demonstrated pathological specimens.

(*i.*) Multilobular cirrhosis of liver and enlarged fibrotic spleen with cicatrized gummata, from a girl, aged 11.

The patient had died with intense jaundice and a high temperature. The Wassermann reaction was positive and the father admitted having contracted syphilis eighteen years before. There had been several miscarriages, and this girl had been a premature baby.

Dr. Webster drew attention to the evidence of chronic nephritis exhibited in the kidneys and the hypertrophic condition of the left ventricle. He had attempted to demonstrate spirochætes in the liver and spleen, but without success.

A rather unusual occurrence for a case of this nature was that there was no aortitis. He commented on the very fine physique of the girl, syphilis notwithstanding.

(*ii.*) The bowel from a case of chronic intussusception in a girl, *æt.* 12. The apex of the intussusceptum presented at the anus and simulated rectal prolapse.

THE LODGE DIFFICULTY IN VICTORIA.

The following letter has been addressed by the Council of the Victorian Branch of the British Medical Association to the members of the Branch, setting forth the present position of the lodge dispute.

The Wasley Commission found that the terms asked for by the Victorian Branch of the British Medical Association were just and equitable, and awarded, *inter alia*, a minimum of 20s. in the town (Melbourne, Ballaarat, Bendigo and Geelong) and 25s. in the country; an income limit and a fee for night calls.

The Council announced its acceptance of the terms of the report on condition that the medical institutes established since the dispute commenced, should be abolished.

The Friendly Societies' Association, which has since been shown to have no constitutional authority to speak for, and no power to bind the various orders, announced that it accepted the Wasley findings unconditionally.

Two large orders (M.U.I.O.O.F. and A.O.F.) immediately refused to be associated with any such acceptance.

An impasse was thus reached, and, on the urgent solicitation of parliamentary and friendly society representatives, further negotiations took place and an agreement made that the newly-formed institutes could continue provided that during the next three years there should be:—

(1) No increase in the number of institutes.
(2) No increase in the medical staffs.
(3) No filling of vacancies on the staffs.
(4) Free choice of doctor by lodge members.
(5) Restoration of medical lists as in November, 1917 (as far as possible).
(6) No discrimination by dispensaries between British Medical Association and other prescriptions.
(7) Members of friendly societies on institute lists to pay the same rate as those on British Medical Association lists.

The Council accepted this agreement because it was confident that the medical institutes would quickly fail under these conditions.

It was accepted also by the Friendly Societies' Association, but the central executives of four large orders, *viz.*, M.U.I.O.O.F., A.O.F., I.O.R. and H.A.C.B.S., refused to ratify its acceptance.

Every friendly society order holds an annual conference of delegates from all the lodges in the State and, at the request of the Honourable the Premier, the Council consented to stand by the terms of the agreement until these conferences met in March and April.

The ultimate result was that seven large orders decided against accepting, and there was therefore no possibility of the terms of the agreement being guaranteed.

Future Prospects.

It is freely acknowledged by the other side that the friendly societies have suffered loss, both financially and numerically; the cost of medical attendance for the past year has increased from £120,000 to £180,000, and during the same period the friendly societies have sustained a loss of 12,000 members.

It is known that there is great and general dissatisfaction among members of friendly societies with the medical institutes, in spite of interested statements to the contrary, and that, taken generally, there is an earnest desire amongst the rank and file of friendly society members for a settlement of the dispute.

The Council is confident that a resolute persistence in its demands will ultimately result in their general acceptance by the friendly societies. Further increase in expenditure and further decrease in lodge membership will seriously jeopardize the stability of the whole friendly society movement, and their managers will in good time come to see that by the terms of the Wasley Report the service rendered by members of the Branch as lodge medical officers is a great concession.

The Council confidently urges members to adhere resolutely to the instructions which have been issued by the Council from time to time, *viz.*:—

(1) No agreement, either temporary or permanent, either implied or written, should be made by medical officers with their lodges, either directly or indirectly.
(2) Private contracts must not be made with former lodge patients except in those districts where medical institutes have been established, and the consent of the Council has been obtained.
(3) A minimum fee of 10s. 6d. should be charged for consultation or visit. This will include any certificate required.
(4) A fee of 10s. 6d. should be charged for all certificates except where the consultation fee has been paid at the time.
(5) The patient must be held responsible for the payment of the fee, and no agreement should be made, either directly or indirectly, with the lodge for payment.
(6) Every effort must be made to see that the patients are attended only by the doctor on whose list they were previously.
(7) Interviews and correspondence with lodge secretaries should be avoided.

Much importance is attached to this last instruction. The M.U.I.O.O.F. has publicly notified its intention of dealing directly with individual doctors, a policy which has been fraught with disastrous results to the lodge medical officers in the past.

Members of the M.U.I.O.O.F. have recently been circularized as to the attitude they are to adopt towards their medical attendant; the lodge secretaries are seeking interviews with members of the British Medical Association, in an attempt to make agreements without the knowledge or consent of the Council of the Victorian Branch of the British Medical Association.

You are advised to decline any such invitation to confer with lodge officials and to refer them to the Secretary of the Victorian Branch for any negotiations they desire. Your Council is confident that a loyal observance of the instructions as set out above, will quickly end the lodge dispute.

Obituary.

WALTER WILLIAM JOSEPH O'REILLY.

We regret to record the death, at the age of 72 years, of Walter William Joseph O'Reilly, which took place at his residence, "Elouera," Pymble, New South Wales, on July 3, 1919, after a long and hopeless illness borne with cheefulness and fortitude.

Coming to the Colony of New South Wales as a child with his father who commenced the practice of medicine in Sydney in the early 'fifties, he received his general education at Newington College, then on the Parramatta River. Later he proceeded home to the Queen's University of Belfast, Ireland, where he graduated, taking the degree of doctor of medicine in 1870 and that of master of surgery in 1871. In the following year he went to London and took the diploma of the Royal College of Surgeons of England. He returned to New South Wales in 1873 and entered practice in Liverpool Street, Hyde Park, Sydney, where he continued for 46 years.

He was for many years Honorary Physician at the Sydney Hospital and on resigning his active work in connexion with the Hospital, he was appointed to the honorary consulting staff.

Walter William Joseph O'Reilly took a lively interest in the welfare of the medical profession and rendered conspicuous service to the New South Wales Branch of the British Medical Association in its early days. He was one of the 20 original members of the Branch on its formation. He was selected by his colleagues as a member of the Council in 1880 and was elected President of the Branch in 1885. In his address as retiring President he said:—

> There are certain duties a medical man owes to the State and although he may not receive the recognition that he should, yet I believe that it is incumbent upon him, as a good citizen, to give every aid and encourage every effort made to insure the health of the people.

This was the view that animated the whole of his professional life. Throughout his long practice, he kept himself unusually well-informed on the newest and latest developments and discoveries in medicine. He was a firm believer in the value of pathological science as a basis on which clinical opinion should be formed.

Walter Joseph O'Reilly belonged to that type of family physician, now unfortunately fast becoming extinct, who studies his patient as well as the disease. By his sound judgement, combined with an almost intuitive knowledge, he was enabled to give a clinical opinion, always valuable and often more than ordinarily accurate. To his patients he was guide, philosopher and friend, as well as medical adviser and to many he endeared himself by his kindliness and generosity, which will long be remembered by all who were privileged to know him.

He leaves a widow and eight sons and daughters. Four are members of the medical profession, Dr. Susie and Dr. Olive O'Reilly, who are practising together in Sydney, Dr. T. L. O'Reilly, Medical Officer to the New South Wales Railways and Tramways, and Dr. Merrick O'Reilly, of Bega, New South Wales. The sympathy of the medical profession is extended to them in their bereavement.

ALFRED EDWARD PERKINS.

On June 30, 1919, Alfred Edward Perkins died at his residence in Sydney. He was born on February 2, 1863. At the age of 20 years he entered the Medical School of the University of Sydney with the first set of students and was among the first graduates of the newly formed school. Before proceeding to his medical degree to took his B.A. with honours and obtained the Levey-Alexander Post-graduate Endowment. Later he took his M.A. and the Earl of Belmore's Gold Medal for Science. This was in 1886. He obtained First-Class Honours at his final examination for the M.B. and Ch.M., while he secured the Gold Medal for Anatomy, the University Silver Medal for Science, three College silver medals and sundry prizes. He entered private practice soon after graduation, but the greater part of his career was marked by achievements in one or other public service. As President of the Sanitary Committee of the municipal Council of Marrickville he obtained a considerable insight into the practical administration of the public health measures obtaining at the time. He was the originator of an out-patient department for persons suffering from tuberculosis in connexion with the Marrickville Cottage Hospital. We understand that this was the first department of its kind in the State of New South Wales. In the course of his public duties he was associated with the administration of the *Railways and Tramways Superannuation Act*. He was the Medical Officer in Chief for Australia of the St. John Ambulance Brigade and for over twenty years he was an honorary surgeon at the Marrickville Cottage Hospital. He was a member of the Committee of Management of this institution for the greater part of this time. He was for a time examiner in *materia medica* at the University of Sydney.

Alfred Edward Perkins entered the Army Medical Corps in June, 1895, receiving a commission as Lieutenant. In July, 1898, he was promoted to the rank of Captain. He served in the South African War as a regimental medical officer at first and later as Officer Commanding a field ambulance. Still later he was selected for the position of Principal Medical Officer to Sir John French's Cavalry Brigade at Thaba'uchu. His service in the South African War was a distinguished one and extended over 16 months. He received the Distinguished Service Order and seven bars. He received his majority in 1901 and in 1909 he was promoted to the rank of Lieutenant-Colonel.

In 1914 he was appointed Commonwealth Medical Officer for New South Wales and retained this position during the remainder of his life. On several occasions he acted temporarily as Principal Medical Officer of the 2nd Military District. In April, 1915, he followed Colonel T. H. Fiaschi temporarily as Principal Medical Officer of the 2nd Military District until the appointment of Colonel E. S. Stokes to this position on November 30, 1915. He received the Volunteer Forces Decoration (Colonial Auxiliary Forces) on the completion of twenty years' service in 1915.

His career was full in incident and in each department of activity he displayed energy, resource and skill. He was somewhat reserved in disposition and few of his colleagues knew him intimately. Beneath the surface were hidden numerous excellent qualities and a kindly spirit. He was ambitious in his efforts to infuse efficiency in the services with which he was connected.

THOMAS CATHCART CALDWELL.

Thomas Cathcart Caldwell, whose death was announced in our issue of July 5, 1919, was born at Portrush, County Antrim, Ireland, on January 20, 1875. He studied medicine in Edinburgh and graduated with the degrees of M.B. and Ch.B. in 1899. On the outbreak of the South African War he volunteered for service and obtained a commission. On his return from active service he entered private practice and in the year 1903 he obtained the diploma of public health of the Royal Colleges of Physicians and Surgeons of Edinburgh and of the Faculty of Physicians and Surgeons of Glasgow. Two years later he took the diploma of tropical medicine at the University of Liverpool. In the same year he went to Nigeria. After a short period of service he was invalided with malaria and returned to England.

In 1910 Thomas Cathcart Caldwell came to Australia and commenced private practice at Rosewood in Queensland. In 1912 he acted for three months as a *locum tenens* to one of the medical officers at the Goodna Hospital for the Insane and on July 5, 1912, he was appointed third assistant medical officer at the same institution. In May of 1913 he had a fall from his horse and was incapacitated from work until the beginning of November. He continued in the Queensland Insanity Service from this time until March, 1916. His health suffered greatly as a result of his accident and during the three years prior to his resignation from the staff at Goodna Hospital he was not able to do continuous work. His illness, which proved fatal on June 25, 1919, lasted for five weeks. Death was attributed primarily to the injuries he had received in the accident in May, 1913.

Thomas Cathcart Caldwell was a very enthusiastic practitioner and up to the time of the accident gave promise of

developing into a surgeon of more than average skill and ability. He was a Free-mason and was accorded a Masonic funeral. His remains are interred in the Goodna Asylum Cemetery at the side of the late Dr. Scholes, formerly Inspector of Asylums of Queensland.

Correspondence.

WHITE MEN IN THE TROPICS.

Sir,—Dr. Moffitt's interesting letter seems to me to be singularly open to denial, for most of his statements are incorrect. He first states that primitive boatmen do not venture far from land. The fact is that Malays regularly visit the Gulf of Carpentaria and have done so for unnumbered thousands of centuries; and the far-flung isles of the Pacific were peopled by primitive men. Again, it is doubtful whether it is only obvious mineral wealth which would attract a dusky Columbus; and it is certainly open to question whether an agricultural people will only wander under the spur of oppression, usually religious. The spur of hunger, due to over-crowding, is stronger and probably acts more frequently; as witness China.

The truth about the Northern Territory is unpalatable, but it has almost become a test of patriotism—wrong-headed, blind and silly patriotism—to shut our eyes to it. The Northern Territory has never attracted man throughout the ages during which it has lain open to receive him, because it is a desolate, barren and hopeless land which nobody has ever been able to make anything out of. It is tropical in that it has the defects of the tropics, the heat, wetness and insect pests; it is desert because for months on end out of every year no rain falls. Wretched though it is in the wet season, its value for agriculture is nullified by the long months of drought, and this miserable climatic regularity is the true reason why the agricultural peoples have passed it by. And so we find that after years of effort the chief white industry, to judge from recent events, is the sale and absorption of beer; and every year sees the unhappy country grow poorer, the unhappy populace smaller and more poverty-stricken. I firmly believe that the only use to which the Northern Territory can ever be put is to absorb it in large stations owned by men of substance and worked by a few men on the spot; their colour I do not specify. But as to attempting anything like closer settlement, that in my opinion is a dream, probably a nightmare. And if it shall be necessary for us to do anything of the sort in order to keep out the Japanese, let us say, then I think we shall find the Japanese will none the less come in, and if so, God help them, for they will find the Territory as thirsty, hopeless and ruinous as we have done.

Yours, etc.,

C. MacLAURIN.

Macquarie Street, Sydney,
July 1, 1919.

THE FLUSHING TREATMENT OF INFLUENZA.

Sir,—I wish through our paper to report to the profession the treatment and results of cases of influenza coming under my care during the present epidemic. My treatment is as follows: So soon as the case is diagnosed as influenza and temperature is 38.3° C., give a sweating powder (to adults) of

℞—

Ac. aceto-sal., 0.36 grm. (grs. vi.)
Phenacetini, 0.24 grm. (grs. iv.)
Caffeini. 0.12 grm. (grs. ii.)

I then insist that the patient drinks one cup (300 c.cm.) of water, warm or cold as they prefer, at once and every half hour until they have consumed at least six to seven cups of water. As a rule I find that a profuse sweating occurs, but the large quantities of water consumed, by replacing the fluid sweated from the blood, prevents any weakening of the patients; vitality remains good. The temperature falls 1° or 1.2° C.. Next day, when the temperature rises, the same procedure is repeated and a sweat results, with fall of temperature and no loss of strength. On the third day, if the temperature rises, as it often does, a powder is given and with each cup of water 3.5 c.cm. (3 i.) of spirit, whisky or brandy, is given. I invariably find that after three or four sweatings the temperature is permanently reduced. In children, such as I have at Burwood homes, I use, together with a modified sweating, cold compresses, repeated hourly, according to the height of temperature. Compresses extend round the body from the axilla to the hips. The compresses are wrung in tepid water and sprinkled with *spiritus vini methylatus*. Towards the end of treatment, the third or fourth day, or earlier if thought fit, the patient is freely stimulated with spirits as required. Bowels are kept freely acting and as much fluid food as possible given.

My results during the past year in 495 cases, taken from all classes, from well-to-do to relief depôt cases, are no deaths in any cases seen by me from the first onset. My only death was in a man ill ten days at Randwick and sent up to Granville. He then had hæmorrhagic influenza from bowel and throat and was very septic and died about the eighteenth day. I may have been lucky in the cases in my charge, but I feel convinced that this flushing treatment meets the case, if taken at all early. I have had some cases, about 20, which had from about six to twelve hours a little rusty sputum, but none became pneumonic.

In conclusion, I feel quite satisfied that the flushing with large quantities of water prevents the necessary sweating from reducing the strength, and patient's vitality remains good to resist the infection. So confident am I now that I promise the patients if they will follow the flushing treatment they will not get pneumonic influenza and will get well, and the proof of the pudding is the eating. This note is written in a hurry, but I will be glad if other medicos will grasp the principle and give it a trial. I must insist that in advanced cases of pneumonic influenza I know this treatment is of no use.

Yours, etc.,

REGINALD BOWMAN, M.B.

Parramatta, New South Wales.
July 2, 1919.

Dr. G. S. Thompson, of Sydney, writes that he has employed a treatment which he regards as specific for influenza in several hundred cases and that he has not experienced a single death in any of these patients. The mixture he exhibits is as follows:—

℞—

Phenazon.	0.6 mils
Tinct. quin. ammon.	2.4 mils
Liq. ammon. acetat.	3.6 mils
Glycerini	3.6 mils
Aq. menth pip. ad.	15 mils

The remainder of his treatment consists in antipyretic measures, the giving of fluids, purgation, the relief of cough, the keeping of patients in the fresh air and the induction of sleep.

Books Received.

THE MUD LARKS AGAIN, by Crosbie Garstin ("Patlander" of *Punch*); 1919. Sydney: Angus & Robertson, Ltd.; published by arrangement with Methuen & Co., Ltd., London, for sale in Australia, New Zealand and the East. Demy 8vo., pp. 100. Price, 1s. 3d.

PROTHÈSE FONCTIONNELLE DES BLESSÉS DE GUERRE, TROUBLES PHYSIOLOGIQUES ET APPAREILLAGE, par Dr. Ducroquet, Préface de Pr. Aug. Broca; 1919. Paris: Masson et Cie.; Crown 8vo., pp. 233, with 218 illustrations. Price, 5 francs.

A TEXT-BOOK OF PHYSIOLOGY, by Martin Flack, C.B.E., M.B., B.Ch., and Leonard Hill, M.B., F.R.S.; 1919. London: Edward Arnold; Royal 8vo.; illustrated by 485 figures in the text. Price, 25s. net.

A VISION OF THE POSSIBLE, What the R.A.M.C. Might Become, an Account of Some of the Medical Work in Egypt: together with a Constructive Criticism of the R.A.M.A., by James W. Barrett, K.B.E., C.B., C.M.G., M.D., M.S., F.R.C.S. (Eng); 1919. London: H. K. Lewis & Co., Ltd.; Demy 8vo., pp. 182. Price, 9s. net.

THE THEORY AND PRACTICE OF MASSAGE, Second Edition, by Beatrice M. Goodall-Copestake; 1919. London: H. K. Lewis & Co., Ltd.. Demy 8vo., pp. 265, with 63 illustrations and plates in the text. Price, 9s. net.

RECHERCHES RÉCENTES SUR LES ICTÈRES, LES RÉTENTIONS BILIAIRES PAR INSUFFISANCE HÉPATIQUE, par M. Brulé; 1919. Paris: Masson et Cie; Demy 8vo., pp. 182. Price, 4 fr. 50.

THE BLIND, Their Condition and the Work Being Done for Them in the United States, by Harry Best, Ph.D.; 1919. New York: The Macmillan Company. Melbourne: Macmillan & Co., Ltd.; Crown 8vo., pp. 763. Price, $4.00.

ÆE FRANCAIS, Enseigné par la Méthode Intuitive et Directe, par P. Dessagnes, Agrégé de l'Université de Paris; 1919. Paris: Masson et Cie; Crown 8vo., pp. 304. Price, 5 francs net.

Medical Appointments.

Among certain persons authorized by the Board of Health as Inspectors under Section 50 of the *Cattle Slaughtering and Diseased Animals and Meat Act, 1902*, are the undermentioned Government Medical Officers:—

Dr. L. E. S. Larbalestier (B.M.A.), Coff's Harbour.
Dr. C. C. Humphries (B.M.A.), Wauchope.
Dr. R. Belli (B.M.A.), Casino.
Dr. R. T. Michell (B.M.A.), Blackheath.
Dr. Harold Lister (B.M.A.), Cobargo.

Dr. E. L. Crowther, under the nomination of the Medical Council of Tasmania, has been appointed a member of the Midwives' Registration Board.

Under the provisions of *The Health Acts, 1900 to 1917*, Dr. N. L. G. Wilson has been appointed Health Officer to the Department of Public Health of Queensland.

The appointment of Dr. E. Curtis Edgerton as Resident Medical Officer to the Government Hospital at Kalgoorlie, Western Australia, is announced.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser," page xxi.

Herberton District Hospital: Surgeon.

Medical Appointments.

IMPORTANT NOTICE.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C.

Branch.	APPOINTMENTS.
VICTORIA. (Hon. Sec., Medical Society Hall, East Melbourne.)	All Friendly Society Lodges, Institutes, Medical Dispensaries and other Contract Practice. Australian Prudential Association Proprietary, Limited. Mutual National Provident Club. National Provident Association.
QUEENSLAND. (Hon. Sec., B.M.A. Building, Adelaide Street, Brisbane.)	Australian Natives' Association. Brisbane United Friendly Society Institute. Cloncurry Hospital.
TASMANIA. (Hon. Sec., Macquarie Street, Hobart.)	Medical Officers in all State-aided Hospitals in Tasmania.
SOUTH AUSTRALIA. (Hon. Sec., 3 North Terrace, Adelaide.	Contract Practice Appointments at Renmark. Contract Practice Appointments in South Australia.
WESTERN AUSTRALIA. (Hon. Sec. 6 Bank of New South Wales Chambers, St. George's Terrace, Perth.)	All Contract Practice Appointments in Western Australia.
NEW SOUTH WALES. (Hon. Sec., 30-34 Elizabeth Street, Sydney.)	Australian Natives' Association. Balmain United Friendly Societies' Dispensary. Canterbury United Friendly Societies' Dispensary. Friendly Society Lodges at Casino. Friendly Society Lodges at Lithgow. Friendly Society Lodges at Parramatta, Auburn and Lidcombe. Leichhardt and Petersham Dispensary. Manchester Unity Oddfellows' Medical Institute, Elizabeth Street, Sydney. Marrickville United Friendly Societies' Dispensary. Newcastle Collieries—Killingworth, Seaham Nos. 1 and 2, West Wallsend. North Sydney United Friendly Societies. People's Prudential Benefit Society. Phœnix Mutual Provident Society.
NEW ZEALAND: WELLINGTON DIVISION. (Hon. Sec., Wellington.)	Friendly Society Lodges, Wellington, New Zealand.

Diary for the Month.

July 15.—Tas. Branch, B.M.A., Branch and Council.
July 15.—N.S.W. Branch, B.M.A., Executive and Finance Committee.
July 16.—W. Aust. Branch, B.M.A., Branch and Council.
July 17.—Vic. Branch, B.M.A., Council.
July 18.—Eastern Suburbs Med. Assoc. (N.S.W.).
July 19.—Northern Suburbs Med. Assoc. (N.S.W.).
July 22.—N.S.W. Branch, B.M.A., Medical Politics Committee; Organization and Science Committee.
July 25.—N.S.W. Branch, B.M.A..
July 25.—Q. Branch, B.M.A., Council.
July 29.—Federal Committee of the British Medical Association in Australia (Melbourne).
July 30.—Vic. Branch, B.M.A., Council.
July 31.—S. Aust. Branch, B.M.A..
Aug. 5.—Tas. Branch, B.M.A., Branch and Council.
Aug. 6.—Vic. Branch, B.M.A..
Aug. 8.—Q. Branch, B.M.A., Council.
Aug. 8.—N.S.W. Branch, B.M.A., Clinical.
Aug. 8.—S. Aust. Branch, B.M.A., Council.
Aug. 12.—N.S.W. Branch, B.M.A., Ethics Committee.

EDITORIAL NOTICES.

Manuscripts forwarded to the office of this journal cannot under any circumstances be returned.

Original articles forwarded for publication are understood to be offered to *The Medical Journal of Australia* alone, unless the contrary be stated.

All communications should be addressed to "The Editor," *The Medical Journal of Australia*, B.M.A. Building, 30-34 Elizabeth Street, Sydney.